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THE CHEMICAL MARKET AUTHORITY

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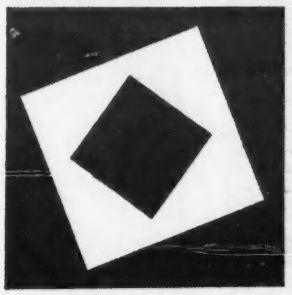

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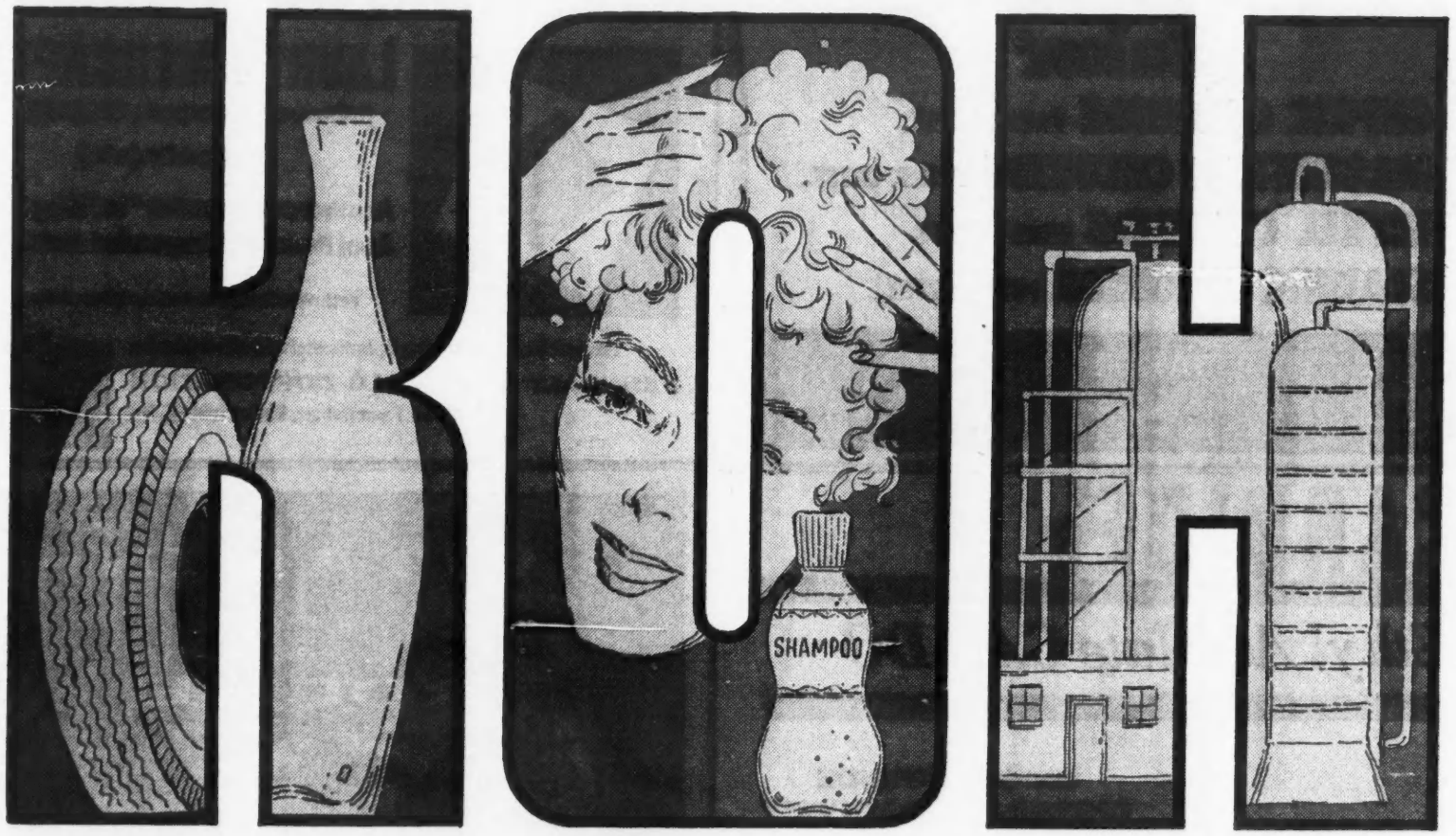

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Oil, Paint and Drug Reporter

Vol. 180 No. 25 30 Church St., New York 7, N.Y. December 18, 1961

POWER SHIFTS AT DIXON CHEMICAL: L. John Polite, jr. (left), named president and chief executive officer of Dixon Chemical & Research, Inc., and Dixon Chemical Industries, Inc., both Clifton, N. J. Mr. Polite succeeds Arthur W. Dixon, jr. (right), who has been made board chairman of the two firms. Mr. Polite has been with Dixon Chemical since 1959 as executive vice-president and previously was with Diamond Alkali Company of Cleveland, Ohio, for seventeen years in a variety of executive capacities.

Kefauver Would Make Peace With the Ethical Drug People, But He Demands Concessions

Peace between the ethical drug manufacturing industry and Sen. Kefauver of Tennessee is in the offing. But that happy state depends upon industry offering some concessions to the senator on the patent features of his control bill, S 1552. The senator is letting it be known that he is not wedded to the terms of the proposal and is willing to compromise, but he is determined to seek some changes in procedures that at least hold out a promise of reduced drug prices.

A mixed industry reaction has greeted Mr. Kefauver's olive branch, extended a week ago at the close of the arguments against the bill.

PMA Leans to Rejection

A strong feeling persists within the Pharmaceutical Manufacturers Association to reject the offer on the ground that the industry has already more than met the senator half-way with its concessions on other features of the bill.

Others in the industry, however, are counseling a more positive approach. It is their feeling that if the industry and the committee staff can work out a new bill, embodying the principles that have been agreed upon thus far, something can also be worked out to satisfy the senator without forcing industry to compromise its principles on patent protection.

Sen. Kefauver notes that there are two chief issues in the patent provisions where he and industry differ:

- Whether the Department of Health, Education & Welfare should make a determination on whether a drug, which is the result of "molecular modifications and combinations," represents a significant therapeutic improvement before issuance of a patent.
- Should there be compulsory licensing of drug patents after three years?

He says he is perplexed by the industry's opposition on the former question,

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D&O'S NEW PRESIDENT: Kenneth W. Hartley, elevated from vice-president and sales manager to president of Dodge & Olcott, Inc., New York.

DuPont Wins Point in GM Case: No Ruling Before Congress Meets

Congress now has the ball in the duPont-GM antitrust case, but will the legislators run with it? In a decision that could only please E. I. duPont de Nemours & Co. and its stockholders, Federal District Court in Chicago last week postponed a final ruling on how the Wilmington, Del., chemical maker should divest itself of its holdings in General Motors Corporation until after congress convenes in January. Pending in the senate is a bill, already passed by the house, granting tax relief to duPont shareholders affected by the court-ordered stock disposal.

DuPont had pressed hard for the postponement because its own proposals on divestiture would be altered if congress provides tax relief.

Several Deadlines for Briefs

The deferment was granted last week when Judge Walter La Buy set a timetable running through January 22 for filing of briefs by the government and defendants.

Under the revised schedule, briefs will be submitted by the government on December 28, and by duPont and Christiana Securities Company on January 12. The government and attorneys representing public shareholders of duPont will then have an additional ten days, until January 22, to file briefs.

The tax relief bill, which would substitute a straight tax on income in place of a capital gains levy on the distributed GM stock, comes up for consideration on the senate floor January 15.

Insiders are wondering now, however, whether some senators who have no strong feelings for or against the measure may not prefer to let the judge rule first.

This possibility was raised in court last week when attorneys opposing the deferment suggested that some lawmakers might want to amend the legislation to accord with a ruling handed down by the court.

As it stands, the tax bill would benefit shareholders directly by the reduced tax, and indirectly by helping to shore up the value of GM stock.

Without tax relief, one of the biggest pressures on GM stock prices, it's pointed

Continued on Page 61

ARMOUR'S CHEMICAL BOSS: John M. Hoerner, elected an executive vice-president of Armour & Co., Chicago, in which post he will be in charge of Armour Chemical Industries.

Parke-Davis Starts Up Fine Chemical Facility

Parke, Davis & Co. has started operations at a new $7.5 million fine chemicals plant—the latest addition to its big Holland, Mich., drug-making complex. The facility, taking over production previously located at Detroit, will turn out some fifty fine chemicals used in many of Parke-Davis' 500 medicinal products.

Removal of this operation to Holland permits utilization of services, facilities and land available at the existing plant, which has been in operation since 1951, Parke-Davis says.

Continuing in their present roles are existing facilities for production of the broad-spectrum antibiotic, "Chloromycetin"; production of "Benadryl," an anti-

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Kawecki and NV Billiton Map Joint Dutch Venture

Kawecki Chemicals Company and NV Billiton Maatschppij, of the Hague, Holland, have agreed to form a joint enterprise in Holland.

The new company, NV Kawecki-Billiton Metaalindustrie, will be set up with initial capital of 4 million Dutch guilders or the equivalent of $1 million at the current rate of exchange. Kawecki Chemical and Billiton will be equal partners in the enterprise.

Building of tantalum and niobium (co-

Continued on Page 51

Nolen Denies His Testimony Favored Kefauver Measure

Testimony by Dr. Herman C. Nolen, president of McKesson & Robbins, before the Kefauver subcommittee last week was in no way an endorsement of the omnibus drug bill (S 1552).

"In appearing before this subcommittee under subpoena as a witness," says Dr. Nolen, "I did not address myelf to the bill or any of its provisions, and was not even questioned about it."

"I did not endorse the Kefauver bill," he goes on, "nor did I disparage in any way the manufacturers of trade-marked products nor did I criticize their pricing policies.

"In fact, I pointed out that these manu-

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Chemical Marketing Cues . . .

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59 PAINT DRIERS: Still a $13 million business, despite latex paint gains.

French Urethanes Race Now Three-Way Affair

The race to become the French kingpin of isocyanates and other urethane raw materials is now a three-way affair. Latest entry: Rhone-Loulenc and Usines de Melle, which are planning a joint isocyanates plant at Toulouse.

A new company—Ste Toulousaine de Produits Chimiques Tolochimie—has been formed to operate the facility. Rhone-Poulenc and Usines de Melle each hold half of the $1.2 million capital.

The new French venture will compete with two others in that country:

- Dekachimie, a company organized by E. I. duPont de Nemours & Co., Wilmington, Del., and Etablissements Kuhlmann, SA, of Paris to run a jointly-owned $6 million isocyanates installation at Lille (OPD, 8/21/61).
- A three-company project of Germany's Farbenfabriken Bayer AG and two French associates: Progil, SA, and Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieres Electriques d-Ugine (OPD, 10/2/61).

Progil-Bayer-Ugine plans to double polyether output at Pont-de-Claix to 1,000 tons

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Korean Fertilizer Contract: Interore Gets Lion's Share

Acting on instructions from Washington, Korea last week awarded contracts for the remaining $6 million of fertilizer material intended to be purchased with Mutual Aid finds.

Successful bidder on $5.5 million worth of the material was International Ore & Chemical Corporation, a New York export concern that represented US producers in the bidding.

Information was not immediately available on who won the other half-million dollars worth of contracts.

The awards were made on the basis of bids submitted at the opening on October 5 and went to American firms as originally intended when the program to purchase $17 million of fertilizers was announced.

The $6 million part of the purchase pro-

Continued on Page 45

Chemical Barometer for 1962: No Optimism and No Pessimism

Chemical manufacturers aren't exactly overly optimistic about business conditions to be expected in the year ahead, but neither are they pessimistic. They just seem to be riding along with the tide. Preliminary estimates of the Department of Commerce and the Securities & Exchange Commission on the industry's thinking, by way of investing capital in new plants and equipment, indicate a cautious trend. First quarter 1962 estimates of capital expenditures are expected to be in the neighborhood of $370 million, about $40 million more than in the same quarter of this year. Experience has shown that announced intentions are usually on the high side.

But if intentions are carried out and are projected through for the entire year on a seasonally-adjusted basis, by this time next year chemical producers would have spent about $1,700 million on new plants and equipment—about $500 million more than this year, and close to the 1954 record of $1,724 million.

Spending in Fourth Quarter

Fourth quarter capital expenditures at $460 million was within $10 million of the mark estimated three months ago, while the third quarter spending of $400 million was $20 million short of expectations. The fourth quarter budget of $460 million is the same as that spent during the final three months of last year.

According to the two government agencies, businessmen as a whole are expected to continue this year's increase in outlays into 1962. Plants for the first quarter of next year are scheduled at a seasonally-adjusted annual rate of $36.5 billion—back to the 1960 spring high—and 6 percent above estimated outlays for 1961.

Capital outlays reached a cyclical low in the second quarter of 1961 and have shown steady recovery since.

All major industries except non-rail transportation companies and public utilities expect spending in the first quarter of next year to be at a seasonally-adjusted annual rate above the full-year 1961 level with commercial companies showing a larger-than-average increase.

Manufacturing outlays in the first quarter of next year are scheduled at a seasonally-adjusted annual rate of $14.6 billion, up 8 percent from the recent low of $13.5 billion in the second quarter. Nondurable goods companies show a steady rise in investment throughout 1961 and the first quarter of 1962.

Australian Drug Venture To Push 'Lederle' Name

American Cyanamid Company, New York, plans to manufacture and sell its "Lederle" brand pharmaceuticals in Australia through a new concern, Cyanamid DHA, Ltd., which it is forming in conjunction with an already-established organization, Drug Houses of Australia, Ltd.

The New York company will be the major partner in the $3 million enterprise, which plans to start off by building a new plant for the manufacture of broad-spectrum antibiotics at Laverton, Victoria, near Melbourne. Start-up date is to be the end of 1962.

TiO_2 Plant in Canada Looks to a Big Future

Canada's only titanium pigments plant has just seen an appreciable expansion in capacity and is due to see still more. So reports Canadian Titanium Pigments, Ltd., which has big plans ahead for its unit in Varennes, Que.

Production capacity has been initially expanded from 32 million pounds of titanium dioxide a year to 50 million pounds, an annual increase of 18 million pounds.

The Canadian concern, which is a wholly-owned subsidiary of National Lead Company, New York, says that limited modifications to the newly-enlarged plant will permit an even further increase in capacity to 64 million pounds a year.

The rapidly growing Canadian market for titanium dioxide was the reason for Canadian Titanium's expansion, says vice-president M. B. Tipton. Conservative estimates made in 1959 indicated that there would be a 7 percent yearly increase. This, it is pointed out, would place the

Continued on Page 30

Cyanamid Hikes Xanthates

The explosives and mining chemicals department of American Cyanamid Company, Bound Brook, N. J., is increasing the price of its line of xanthate mining reagents 1 cent per pound. The new price applies to shipments made on or after January 1.

ICI Chairman Asks End Of UK Fertilizer Subsidy

Britain's fertilizer industry would be healthier if the government ended the "several pounds" (one pound equals $2.80) a ton subsidy, S. P. Chambers, chairman of Imperial Chemical Industries, Ltd., thinks.

Under British system, the subsidy on fertilizers is paid to the farmer direct, with the fertilizer makers setting prices in line with competitive conditions.

The Week's Price Changes

Corn Oil, Cottonseed Meal, Olive Oil, Vanilla Beans Advanced. Cocoa Butter, Phenol, Soybean Meal, o-Toluidine Reduced.

Prices Advanced

Corn oil, crude, 1c. per lb. (p. 60).
Refd., 1c. per lb. (p. 60).
Cottonseed meal, $1 per ton (p. 60).
Cottonseed oil, crude, ¼c per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Lard, cash, ⅛c. per lb. (p. 60).
Linseed meal, $2.50 per ton (p. 60).
Olive oil, spot, 5c. per gal. (p. 60).
Peanut oil, crude, ½c. per lb. (p. 60).
Refd., ½c. per lb. (p. 60).
Soybean oil, crude, ¾c. per lb. (p. 60).
Refd., ¾c. per lb. (p. 60).
Vanilla beans, bourbon, 10c. per lb. (p. 53).
Mexican cut, 55c. per lb.

Prices Reduced

Cocoa butter, 1c. per lb. (p. 60).
Phenol, syn., USP, 1¼c. per lb. (p. 44).
Nat., 39°C, 1¼c. per lb., other grades 1½c. per lb. (p. 44).
Soybean meal, $3.50 per ton (p. 60).
o-Toluidine, 1c. per lb. (p. 44).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Dec. 15, 1961	Dec. 8, 1961	Dec. 16, 1960
114.04	114.00	108.89

Chemical Business Off a Bit

Chemical manufacturers in the third quarter suffered from something of a slump in sales and earnings, from those of the second quarter, but not to the point of falling behind the low totals of the same period last year. Figures compiled from the industry's financial statements by the Federal Trade Commission and the Securities & Exchange Commission last week showed industry's profits after taxes in the third quarter to be $520 million. This compares with $566 million in the second quarter and $504 million in the third quarter of 1960.

The industry's sales total declined to $7,023 million from the second quarter total of $7,250 million, but were still ahead of the $6,770 million recorded in the comparable period last year.

Manufacturers of chemicals other than basic chemicals and drugs appeared to experience the greatest slump in sales. The figures indicate sales for this group declined $184 million in the third quarter from the second quarter level and were only $90 million ahead of the same period last year.

Sales of basic chemicals by manufacturers were estimated at $3,242 million for the third quarter, with profits after taxes down to $251 million. In the second quarter, sales were $3,339 million and profits $284 million, while in the third quarter

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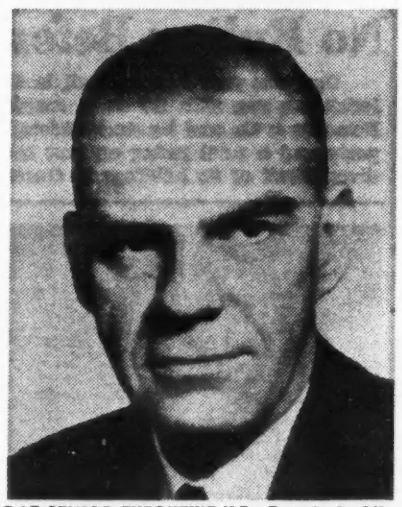

GAF SENIOR EXECUTIVE V.P.: Francis A. Gibbons, elected senior executive vice-president of General Aniline & Films Corporation, New York.

Molybdenum Corp., Grace Set a Rare Earths Venture

Molybdenum Corporation of America and W. R. Grace & Co. have entered into a long-term contract under which Molybdenum Corporation will supply rare earth concentrates to Grace's Davison Chemical Division.

The rare earth compounds will be processed by Davison into cerium oxide polishing compounds for use in the glass industry.

Molybdenum Corporation reportedly has the world's largest deposit of rare earth ores at its Mountain Pass, Calif., mine. Grace operates a plant at Pompton Lakes, N. J., for production of glass industry products.

The agreement is the result of extensive research by Grace and a cooperative effort by the two concerns over the past six months.

Polystyrene Deal in Japan Teams BASF and Mitsubishi

Badische Anilin & Soda Fabrik AG, one of Germany's big three chemical companies, is following the trend to Japan and will build a polystyrene plant jointly with Mitsubishi at Yokaichi.

A new company, Yuka-Badische, has been formed and initial capacity of the plant will be 3,000 metric tons a year of styrene plastic, with production based on BASF processes.

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OIL, PAINT AND DRUG REPORTER, Vol. 180, No. 25, December 18, 1961. Published weekly on Monday by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N. Y., U.S.A. Second-Class postage paid at New York, N.Y. Single copy price: 50 cents. Subscription prices:—United States and Possessions, $5 a year; Canada $9; other countries, $15. Subscription includes Buyers Directory Issue, published each August.
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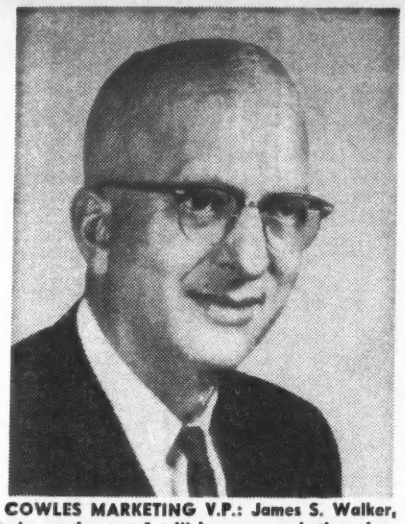


COWLES MARKETING V.P.: James S. Walker, who on January 1 will become marketing vice-president of Cowles Chemical Company, Cleveland, Ohio.

Caribbean Isle to Get Big Chemical Complex

The Caribbean island of Aruba will soon have a brand new $40 million chemical complex, built through the joint efforts of American interests and the Aruban government. Slated for development are a fertilizer plant and an ammonia facility—and sufficent power, harbor and airport installations to service them.

Construction of the chemical plants will start early next year and claim about half of the earmarked $40 million. The balance will go into the general development work which is aimed specifically at supporting the chemical installations.

The fertilizer plant will be put up and run by Aruba Chemical Industries, a concern in which Standard Oil owns what is described as "a partial interest." Capacity is pegged at 400 short tons of mixed fertilizer and 250 short tons of urea per stream day.

The fertilizer unit is growing out of a revival of interest in phosphate on the island. New and economical reserves of phosphate have recently been found as a result of a survey ordered by the Aruban government. The island was known for its reserves of phosphate years ago, but these played out and it was not until the recent study that others were located.

The ammonia plant will be built and operated by Antillean Chemical Company, a subsidiary of Standard Oil Company (New Jersey). Its capacity will be 325 short tons per stream day.

Recently the Netherlands Antilles were permitted to become associated with the European Common Market, which means that products manufactured on Aruba and the other islands may enter Common Market countries duty-free.

To encourage investment and development, the government also offers a ten-year tax holiday to new industries.

Huber Corp. Is Expanding Spray-Dried Clay Capacity

J. M. Huber Corporation, producer of clays for the paper, rubber, paint, insecticide, ceramics, adhesives and other industries, will increase production of spray-dried pre-dispersed clays when a new Bowen spray dryer goes on stream early next year.

The new spray dryer, engineered by Bowen Engineering, Inc., North Branch, N.J., will be similar in size to the Instant spray dryer installed in 1956. Bowen purchased Instant Drying Corporation in 1958.

Census Bureau Trade Reports: Their Fate Rests in the Hands Of Chemical Industry's Leaders

What is going to happen to the Census Bureau's monthly and quarterly statistical reports which have proved themselves so valuable to the chemical industry? That is a question the chemical trade is asking, and one that its leaders themselves will have to answer. The problem stems from last week's Supreme Court decision, which erases the "confidential" tag on private company reports compiled for Census, and in so doing makes them available to any other government agency with subpoena powers, such as the Department of Justice or the Federal Trade Commission.

The immediate effects of the high court's decision is impossible to gauge, but it is known to be causing serious concern in chemical circles.

Effects May Be Ignored

The best that can be hoped for, it is believed, is that after a thorough weighing of the advantages of the reports, the companies cooperating in the programs will ignore possible effects of the decision and continue on as in the past.

On the other hand, there is a fear that the decision may force some companies to drop out of the program and thus discontinue giving the agency information of production, values, shipments, etc.

This, observers point out, would drastically reduce both the coverage and usefullness of the agency's reports to market analysts, individual companies, trade associations and other users of statistical information.

The Supreme Court has ruled that the "confidential" label applies only to the reports put together specifically for Census and to the use made of them within the agency; it does not extend to the copy the company retains in its files. The latter, as industry is well aware, is subject to subpoena by FTC in its anti-trust investigation work.

The reports are largely a hold-over from World War II days. During the war, industries were required by law to submit certain data to the government for use in planning production and distribution control programs.

After the war, when the mandatory requirements were dropped, many of these programs were continued on a voluntary basis because the information was of great use to producers and others.

Because they are voluntary, these statistical programs are considered the most vulnerable to the court's decision.

The other Census reports, such as the

Continued on Page 41

Pure Oil Co. Steps Along In the Petrochemical Field

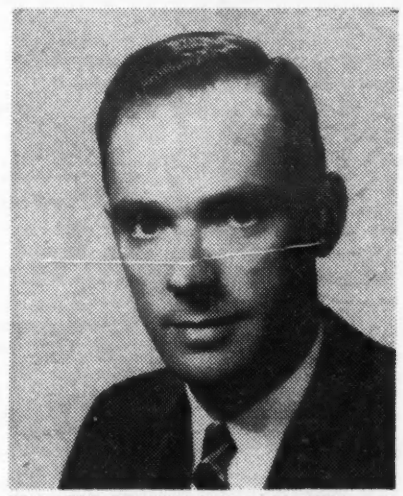
In a program of petrochemical penetration, Pure Oil Company has just started operations at two benzene-toluene-xylene plants and is now readying a new hexane-heptane unit for start-up by January 31.

The BTX units are located at Pure Oil's Lemont, Ill., and Smiths Bluff, Tex., refineries. The Smiths Bluff unit is run as a joint venture with Atlantic Refining Company.

Also under way at Smiths Bluff, the company reports, is construction of a plant for production of nonene and dedecene—slated for start-up by March.

Together, these facilities represent Pure Oil's first major investment in petrochemicals beyond its extensive line of naphthas and solvents. Marketing is through the company's American Mineral Spirits division.

In a speech to the New York Society of Security Analysts last week, president Robert L. Milligan reported that a "major" breakthrough" has been achieved in the company's fuel cell research program. Details were withheld, other than that the process involves use of hydrocarbons.



GMI ASS'T GENERAL MANAGER: William R. Price, Jr., named assistant general manager of its chemical division at Kankakee, Ill., by General Mills, Inc.

Maleic Anhydride Set For a Process Debut

Maleic anhydride will be coming from another source next month, and it won't be dependent on the supply of aromatics, either. Origin will be Petro-Tex Chemical Corporation's new facilities, which have just gone on stream in Houston, Tex.

The industry has been interested in this new plant since Petro-Tex decided more than a year and a half ago (OPD, 5/30/60) to put up the plant. It represents what is a completely new wrinkle in the production of maleic anhydride.

The material is produced by a process which is based on the direct oxidation of mixed C_4 hydrocarbons rather than by the conventional means of oxidation of benzene.

A major advantage cited for this method of production is the freedom it helps give the material from fluctuations in the supply and price of benzene.

FMC Corporation, which is one of the partners in Petro-Tex (the other is Tennessee Gas Transmission Company) will market commercial quantities of the maleic anhydride as briquettes in bags and drums.

Facilities are also nearing completion

Continued on Page 42

Vitro and Smith Team Up To Form Joint Subsidiary

Vitro Corporation of America and A. O. Smith Corporation have formed a jointly-owned company, Vitro-Smith Corporation, which will have permanent staff headquarters in New York.

Vitro-Smith, incorporated in Delaware, will have as its president Dr. Norman A. Spector. Heading the operating staff will be Val Weiler. John T. Bailey has been named technical director.

Sulfur and Potash Consumption Seen Equaling Capacity

Spurred by worldwide demand for fertilizers, consumption of sulfur and potash should easily keep pace with bourgeoning capacity in the years ahead. So says Texas Gulf Sulfur Company, the nation's largest sulfur producer and a potash producer-to-be.

The short-term outlook, Texas Gulf feels, is for better balance next year in a now over-supplied sulfur market and a potential shortage of potash by mid-decade.

"In 1962, we expect to sell a little more sulfur and we assume that the price will average out to the same levels at this year," Claude O. Stephens, Texas Gulf's president, said last week.

More Will Be Needed

In an address before the Los Angeles Society of Financial Analysts, he noted the current over-supply of sulfur but predicted that in the not-too-distant future, "the Free World will need even more than today's present production capacity."

He tabbed 1970 Free World sulfur consumption at 26 million tons, up 50 percent over current levels.

Even allowing for newly-slated production from Canada and France, this leaves a potential supply deficit of 5 million tons by 1970—much of which must be supplied by US domestic producers, TG's president said.

Turning to potash, he said TG should be in production at Moab, Utah, by the end of 1962, entering the market in time for the 1963 fertilizer season. Regional sales offices have already been set up in Chicago, Atlanta, Ga., and Houston, Tex.

TG's potash venture at Moab, involving an investment of $30 million, is expected to contribute $5 million a year to net income after taxes by 1964. This is based on a capacity of 1.1 million tons of potash a year.

Mr. Stephens pointed out that US consumption of potash has nearly doubled in the last decade and that Free World demand should double again by 1975 or sooner.

"Our potash, coupled with new supplies coming from Canada, will nearly fill a gap between supply and demand. Studies indicate a total demand of 5,850,000 tons of potash for US and Canadian production for the year beginning June 1, 1963. By that time, total US and Canadian production will come to 4,850,000 tons without

Continued on Page 62

SNPA's Ethylene, Benzene Units Due in Third Quarter

Ste Nationale des Petroles d'Aquitaine, French state-controled oil company, plans to put into operation in the third quarter of 1962 ethylene and benzene production units at the big Lacq gas field in southwest France, with styrene and polystyrene output to follow.

SNPA is planning on 25,000 tons a year of ethylene and 70,000 tons of benzene. The company is the major firm developing the Lacq reserves for natural gas distribution, power production and petrochemicals.

Using ethylene and benzene, SNPA also plans to produce 25,000 tons a year of styrene monomer and 10,000 tons of polystyrene plastic. The styrene monomer not used in plastic production will be sold, primarily for use in butadiene-styrene synthetic rubber.

Ethylene Amine Facility Will Be Erected in Italy

Ethylene amines will have a new production source in Italy by early 1963.

SpA Celene is planning to build and operate a unit with a capacity of 16 million pounds per year of ethylene diamine and related chemical products at Priolo, Sicily.

The Italian company is owned by Union Carbide Corporation, New York, and Societa Edison, a major industrial complex in Italy that is characterized by broad chemical interests.

Polyamide Fiber Research Still Heating Up in Soviet

The Soviet Union, which already has officials here worrying that the US may be lagging in the development of synthetic fibers with military potential, isn't content to rest on its laurels.

Latest word, in *Current Review of the Soviet Technical Press*, has it that several polyamides and copolyamides based on alpha-epsilon-aminocarboxylic acids with benzene or cyclohexane rings in the methylene chains have been synthesized on a laboratory scale.

The study, conducted by the All-Union Scientific Research Institute of Synthetic Fibers, was made in order to investigate the fiber-forming properties of the polymers, some of which were already known to form highly thermostable fibers.

The institute has synthesized a series of aminocarboxylic acids—some of them for the first time—and has prepared a number of polyamides and copolyamides by polycondensation, and has studied their fiber-forming properties.

It was shown that polyamides of p-aminoethylcyclohexylpropionic acid (melting point 262-271 degrees Centigrade) and copolyamides of p-aminoethylbenzoic acid with epsilon-caprolactam (melting point 230-236°C.) form strong fibers from melts.

Recently, the Army Quartermaster General's Research & Engineering Center in Natick, Mass., released results of a study of the Russian fiber industry which concluded that the Soviets may well be ahead of the US in developing new fibers with higher melting points, superior stress-strain properties and greater inherent chemical resistance than any known here (OPD, 11/13/61).

WHO'S THE LITTLE MAN IN THE WHITE COAT?

Works for Penick. Does research on Neomycin.

Why is he running?

Busy! He's part of the most productive research group among Neomycin producers.

What are they doing that's so great?

Developing useful new Neomycin derivatives at a giddy clip. Nobody offers as many forms of Neomycin as Penick and they're continually adding new complexes.

Is that good?

Customers think so. Enables them to make more and better products based on Neomycin. Penick's group helps them with new product research, too.

What forms of Neomycin does Penick make?

Of course, they make Neomycin Sulfate USP. Commercial and veterinary grades, too. All in regular and micronized forms. They offer superior white material with exceptional purity and uniformity.

Then there are palmitate, undecylenate and a number of other new derivatives still considered developmental.

Penick make any other antibiotics?

You bet. Widest range of specialties made, including Bacitracin, Tyrothricin, Gramicidin, Brevicidin T.M., Candicidin and others. They've just increased production facilities by 30% to meet customers' needs. They maintain stocks coast-to-coast. Make mixed shipments, too, to save you money and paper-work by consolidated purchasing. Best possible service!

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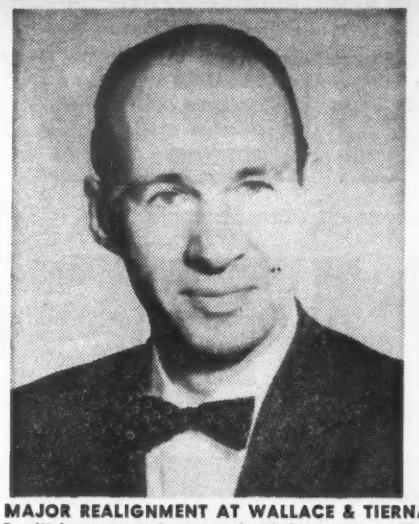


MAJOR REALIGNMENT AT WALLACE & TIERNAN: Robert M. Jackson (left), who on January 1 will become chairman and chief executive officer of Wallace & Tiernan, Inc., Belleville, N.J., and A. I. Andrews (right), who moves up on the first from general manager to president of W&T's Lucidol Division in Buffalo, N.Y. Mr. Jackson succeeds Martin F. Tiernan, who has stepped down as chairman for reasons of health. Robert T. Browning has been elected president of Wallace & Tiernan to succeed Mr. Jackson. Mr. Andrews succeeds Dr. F. Visser't Hooft, who will retire as Lucidol president on December 31 after more than thirty-six years with the division. Dr. Visser't Hooft will continue his association with W&T as a consultant to the chemical division.

Pesticide Chemical Sales Are Setting New Record in 1961 at $300 Million

Pesticide chemical sales at the basic manufacturers' level will hit $300 million by year-end, an all-time high for the industry. So says National Agricultural Chemicals Association, which notes that all branches of the industry did well during the year—insecticides, for instance, rising 7 percent. The 1961 record marks the eighth straight year in which pesticide sales have increased, with business up nearly 100 percent from 1953 when producers racked up $161 million in sales.

S-W HAS NEW VICE-PRESIDENT: Robert F. Hennig, elected vice-president in charge of purchases and a director of Sherwin-Williams Company, Cleveland, Ohio.

The gain in insecticide sales, NACA points out, is the first major increase in this category in two years. The rise is credited to heavier-than-usual insect infestations in some farm areas during the past growing season, and to somewhat greater promotion of insecticides to farmers, foresters and home owners.

Herbicide Sales Continue Uptrend

Herbicides, which have been showing sales gains virtually every year, continued their upward sales trend in '61. Wider use of selective weed killers in agriculture and more extensive use of chemical weed killers in home lawn care contributed to higher sales in this category.

NACA is encouraged by the greater public acceptance of chemicals for crabgrass control in home lawns.

It's estimated that about 60 percent of the pesticide industry's output normally

Continued on Page 66

Drug Industry Rallied To Combat Ignorance

Drug makers must continue to fight with vigor the public "ignorance and misunderstanding that could hamper" their further progress in the war against disease. They must break the "communications barrier."

Such is the view of Dr. Austin Smith, president of Pharmaceutical Manufacturers Association, who, in an address to the association's eastern regional meeting in New York last week, brought out that:

- Wholesale drug prices have gone

Continued on Page 66

American Potash Buys Gov't Perchlorate Plant

American Potash & Chemical Corporation, Los Angeles, has just bought the government's ammonium perchlorate production plant at Henderson, Nev.

Identified as the Naval Industrial Reserve Ordnance Plant, the installation went to the chemical company for $5,161,000, a price greater than the Navy's cost in acquiring it.

The facility, devoted to the production of ammonium perchlorate, a vital component of solid propellant fuel, comprises 290 acres of land, sixteen buildings, machinery and equipment. The property, together with adjoining facilities owned by American Potash, is essential to the three-stage processing of the fuel component.

GSA points out that the sale is subject to the ten-year security clause requiring the purchaser to maintain productive capacity for national emergency use.

OPD Reports From Europe

European Chemical Sales Up, But Slower Pace Has Makers Worrying About '62 Prospects

Continued expansion of chemical sales, but a "moderate rhythm," is the description of Europe's industry for 1961—a year which opened in the blaze of 1960's record progress. The most disturbing factor about the slowdown is the apparent pick-up in deceleration during the last half of the year, and this brings worries about 1962. For instance, Farbwerke Hoechst AG—Germany's No. 2 chemical company on the basis of 1960 sales—last July was expecting a sales increase this year of about 10 percent, but the latest forecast on the basis of ten-month figures is for a 7 percent increase. For all of 1960, Hoechst spurted 22 percent above the 1959 results.

The French chemical industry as a whole is now projecting 1961 sales volume up on the average about 6 percent for 1961, with prices averaging 1 to 2 percent below 1960. But the industry reported a volume increase of 8 percent for the first half of the year.

Some Slowing Down Generally

Some general slowing down for the whole European economy has been reported by the economic statisticians of the Common Market in Brussels.

They note weakness in the economies of Germany and Holland especially, but general falling of demand for autos, steel products and textiles is reported also in Belgium and France.

Italy is the big exception, for industrial output has continued to rise so far through 1961.

Common Market figures, however, show that if Europe's industry is having a tougher time on the home market, the difficulties so far haven't passed over to exports.

The foreign trade balance for September shows an increase in exports and decrease in imports. Imports fell from May through September, though an increase is shown in October preliminary figures.

In line with the overall figures from Brussels, Montecatini Societa Generale in Italy so far this year is maintaining about the best growth pace of any major European chemical company which issues interim reports.

Pechiney in France is an exception, but it ascribes the bulk of its growth this year to rapidly expanding output of aluminum.

Count Carlo Faina, Montecatini's president, reported at last week's board meeting in Milan that sales for the first nine months of '61 are up 12 percent to $516 million. This compares with $460 million in business chalked up for the first three quarters of last year.

While Montecatini produces aluminum, the light metal is not so significant in its results as with Pechiney.

Pechiney in its latest comment on the progress for 1961 notes a 17 percent in-

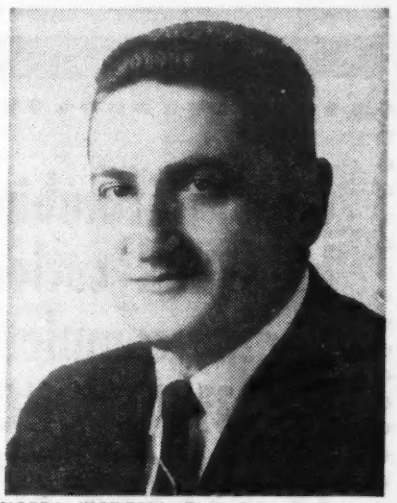
Continued on Page 42

Kaeppeli, Umbricht Put In Top Ciba Corp. Posts

Dr. Robert Kaeppeli and Dr. Victor Umbricht will serve as chairman and president, respectively, of the new Ciba Corporation, effective January 1. On that same date all Ciba companies will be merged into Ciba Corporation. The companies include Ciba Pharmaceutical Company, Summit, N.J.; Ciba Chemical & Dye Company, Fair Lawn, N. J., and Ciba Products Company, Fair Lawn, N.J.

The board of directors of Ciba Corporation will have the same members as its predecessor organization, Ciba States,

Continued on Page 66



NORDA VICE-PRESIDENT: John F. Galluzzi, named a vice-president of Norda Essential Oil & Chemical Company, New York. He will continue in charge of Norda's flavor department.

PE's 1962 Outlook: Up for Both Densities

Up, up. That's the 1962 business outlook for polyethylene — both conventional (low-density) and high-density. Sales of conventional PE are expected to rise 10 to 15 percent next year, while high-density is seen jumping some 37 percent.

Peering ahead are William P. Marsh, jr., vice-president and assistant general manager of chemical operations for US Industrial Chemicals Company, New York, and George Wash, director of the plastics sales division of Phillips Chemical Company, Bartlesville, Okla.

"Unless there is a reversal of current demand trends," Mr. Marsh says, "US producers of conventional polyethylene will service a broad-based market consuming between 1.3 billion and 1.4 billion pounds of polyethylene in 1962. This compares with an expected 1961 sales total of about 1.2 billion pounds."

For high-density PE, Mr. Wash sees a '62 market of 356 million pounds. This

Continued on Page 40

Virginia-Carolina Elects Wilson Operating Chief

David K. Wilson, chairman of the board of Virginia-Carolina Chemical Corporation, has become chief executive officer of the company upon the death of Justin Potter (see Obituaries on page 39).

Mr. Wilson's succession to the top post was automatic since the company's by-laws provide for such a step in the event of the death of the incumbent.

Mr. Wilson, also president of Cherokee Insurance Company, Nashville, Tenn., succeeded Mr. Potter as chairman last August when the latter's illness had made it increasingly difficult for him to handle executive duties.

Herbicides' Ally Stops Weeds From Waxing Waxy

Weeds that wax waxy to protect themselves from such things as herbicides, may someday have their waxing abilities restricted by ethyl N, N-di-n-propylthiolcarbamate, an experimental wax inhibitor dubbed EPTC.

That is the latest word from the Agricultural Research Service of the Department of Agriculture.

Reducing the natural formation of leaf wax increases the susceptibility to herbicides, USDA explains, adding that in tests on cabbages the formation of the protective wax was cut by more than 90 percent.

Cabbage was used as a test because it normally develops a thick coating of leaf wax. Many other weeds, including mesquite, oxalis and lucerne, also have similar heavy coatings.

In tests at USDA's Agricultural Research Center in Beltsville, Md., EPTC and some other thiolcarbamates restricted development of wax only on those leaves that were in bud when the chemical was available to the plant. There was no effect on leaf wax already formed at the time of treatment.

When EPTC was applied to the leaves in a spray, it restricted wax development on leaves that were in bud at the time of spraying. In another method of application, plants were exposed to vapors that arose from granules placed under the plants in a dish. The granules were removed and replaced several times during the test. All leaves that were in bud stage when the granules were present developed without leaf wax; all those that were in bud stage when the granules were not present developed normal wax.

Although this preliminary research offers hope for improved weed control by preconditioning plants with wax inhibitors, much more research is needed to determine if this will be practical.

Meeting Dates
May Be Found
On Page 31

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		Tanks*	PRICE Dms. C.L.	Dms. L.C.L.	Terms of Shipment
ALCOHOLS					
Butanol	lb.	.155	.18	.195	frt. alld.
2-Ethylhexanol	lb.	.18	.205	.22	frt. alld. (East Terr.) (1)
2-Ethyl Butanol	lb.	.28	.30	.3075	f.o.b. Shipping Point
Hexanol	lb.	.33	.35	.3575	f.o.b. SP
Isobutanol	lb.	.13	.155	.17	frt. alld.
Isopropanol, 91%	gal.	.42	.58	.68	frt. alld.
Isopropanol, Anhydrous	gal.	.46	.62	.72	frt. alld.
Methanol	gal.	.30 gal.	.515	.615	frt. alld. (East Terr.) (2)
Methanol	gal.	.29 gal.			f.o.b. SP
Methyl Amyl Alcohol	lb.	.145	.17	.185	frt. alld.
Primary Amyl Alcohol	lb.	.1775	.2025	.2175	frt. alld.
Propanol	lb.	.115	.14	.155	frt. alld.
Proprietary Solvent †SYNASOL Solvent	gal.	.56	.72	.83 (Under 950 gal.) .77 (Over 950 gal.)	frt. alld.
KETONES					
Acetone	lb.	.07	.095	.11	frt. alld.
Diacetone Alcohol, AF Grade	lb.	.13	.155	.17	frt. alld.
Diisobutyl Ketone	lb.	.145	.17	.185	frt. alld.
Ethyl Butyl Ketone	lb.	.34	.36	.3675	f.o.b. SP
Isobutyl Heptyl Ketone		.2725	.2925	.30	f.o.b. SP
Isophorone	lb.	.225	.25	.265	frt. alld. (East Terr.) (3)
Mesityl Oxide	lb.	.125	.15	.165	frt. alld.
Methyl Acetone, syn.	gal.	.445	.605	.705	frt. alld. (East Terr.) (4)
Methyl Ethyl Ketone	lb.	.125	.15	.165	frt. alld.
Methyl Isoamyl Ketone	lb.	.175	.20	.215	frt. alld.
Methyl Isobutyl Ketone	lb.	.145	.17	.185	frt. alld.
ESTERS					
Butyl Acetate	lb.	.145	.17	.185	frt. alld.
Butyl CARBITOL Acetate	lb.	.2875	.3075	.315	f.o.b. SP
Butyl CELLOSOLVE Acetate	lb.	.195	.22	.235	frt. alld. (East Terr.) (1)
CARBITOL Acetate	lb.	.2525	.2725	.28	f.o.b. SP
CELLOSOLVE Acetate	lb.	.17	.195	.21	frt. alld. (East Terr.) (1)
2-Ethylhexyl Acetate	lb.	.345	.37	.385	frt. alld. (East Terr.) (3)
Ethyl Acetate 85-90%	lb.	.125	.15	.165	frt. alld.
Glycol Diacetate	lb.	.30	.32	.3275	frt. alld.
Isobutyl Acetate	lb.	.1275	.1525	.1675	frt. alld.
Isopropyl Acetate	lb.	.115	.14	.155	frt. alld.
Methyl Amyl Acetate	lb.	.145	.17	.185	frt. alld. (East Terr.) (1)
Methyl CELLOSOLVE Acetate	lb.	.27	.29	.2975	f.o.b. SP
Primary Amyl Acetate	lb.	.165	.19	.205	frt. alld.
Propyl Acetate	lb.	.1225	.1475	.1625	frt. alld.
Tetraethyl Osthosilicate	lb.		.65	.665	frt. alld.
GLYCOL-ETHERS					
Butoxy Ethoxy Propanol	lb.	.1925	.2125	.22	f.o.b. SP
Butyl CARBITOL	lb.	.2825	.3075	.3225	frt. alld. (East Terr.) (1)
Butyl CELLOSOLVE	lb.	.195	.22	.235	frt. alld. (East Terr.) (1)
CARBITOL Solvent	lb.	.20	.225	.24	frt. alld. (East Terr.) (1)
CELLOSOLVE Solvent	lb.	.185	.21	.225	frt. alld. (East Terr.) (1)
Hexyl CELLOSOLVE	lb.	.4725	.4925	.50	f.o.b. SP
Methyl CARBITOL	lb.	.185	.21	.225	frt. alld. (East Terr.) (1)
Methyl CELLOSOLVE	lb.	.185	.21	.225	frt. alld. (East Terr.) (1)
UCAR Solvent LM	lb.	.185	.21	.225	frt. alld. (East Terr.) (1)
UCAR Solvent 2LM	lb.	.195	.22	.235	frt. alld. (East Terr.) (1)

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, December 15 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low many be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. lb. 1.90 2.40
Acacia (see Arabic gum).
Acetaldehyde, 99%, dms., c.l., frt. alld lb. .12 - —
dms., l.c.l., frt. alld lb. .13½- —
tanks, frt. alld lb. .10 - —
Acetaldehyde prices 1c. higher in West.
Acetaldol (see Aldol).
Acetanilide, tech. flaked, bbls., bgs., c.l., frt. alld lb. .32½- —
bbls., bgs. ton lots, frt. alld. lb. .33¼- —
bbls., bgs. smaller lots, frt. alld lb. .36½- —
USP bbls. 225-lb dms. any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid coml., or redist., 28%, bbls 100 lbs 4.80 - —
56%, bbls. 100 lbs 8.25 - —
70%, bbls. 100 lbs 9.95 - —
80%, bbls. 100 lbs.10.45 - —
glacial, syn., CP, dms., c.l., divd. E 100 lbs. 18.75 - —
tech., dms., c.l., divd. E 100 lbs. 13.75 - —
dms., l.c.l., divd. E 100 lbs. 15.25 - —
tanks, divd. E 100 lbs. 10.00 - —
USP, tanks, divd. E 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., divd E lb. .16½- —
aluminum ret dms., l.c.l., divd E. lb. .18 - —
tanks, divd E lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., divd lb. .70 - —
fib. dms., l.c.l., divd lb .71½- —
Acetoacet-o-chloroanilide, fib. dms., c.l., divd lb. 1.25 - —
fib. dms., l.c.l., divd lb. 1.26 - —
Acetoacet-o-toluidide, fib. dms., c.l., divd lb. .73 - —
fib. dms., l.c.l., divd lb. .74½- —
Acetone, CP, dms., c.l., divd lb. .09½- —
dms., l.c.l., divd lb. .11 - —
tanks, divd. lb. .07 - —
Acetonitrile, dms., c.l., frt. alld lb. .37½- —
dms., l.c.l., frt. alld lb. .39 - —
tanks, frt. alld lb .35 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb dms. 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns. dms lb. .42 1.30
Tech., dms., c.l., works lb. .32½- —
dms., l.c.l. works lb. .34 - —
tanks, works lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - —
dms., 100-lb. lots, same basis lb. 1.54 - —
Acetylene black, imp. bgs., c.l., duty and freight extra lb. .20 — —
cs., l.c.l., ex whse lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more f.o.b. works lb. .53 —
Acetylsalicylic acid, USP, cryst. (20-40 mesh), powd (80 mesh) 250-lb dms., c.l. pt. of shipt lb. .56¼ —
USP 10% starch granulation, 12-50 mesh white, 250-lb. dms. c.l. same basis lb. .56¼ —
(Pink and green granulations 5c. per lb higher.) Freight equald shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis
Acetyltributyl citrate, tech., non-ret dms. c.l. frt. alld. E of Denver lb. .34 - —
non-ret. dms., l.c.l., same basis lb. .36 - —
tanks, same basis lb. .31½- —
Acetyltriethyl citrate, tech., non-ret. dms. c.l. frt. alld. E of Denver lb. .38 - —
non-ret dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .35½- —

ACIDS
Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls lb .50 .55
Acrolein, tech. dms., c.l., works lb .36 —
dms. l.c.l., works lb. 36¾ - —
tanks works lb. .31 - —
Acrylamide dms t.l., f.o.b. works. lb. .58 - —
dms. t.t.l. same basis lb. .60 - —
Acrylic acid glacial, dms c.l., t.l., divd lb. .42½- —
dms. t.c.l., t.t.l., divd lb. .43¼- —
tanks, divd. lb. .40 - —
tech., esterification, tanks, frt. alld lb. .38 - —

Abies Siberica Oil—Ammonium Bromide

Acrylic acid, tech., polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l. t.l., works lb. .17½- —
dms., l.c.l., t.t.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., divd lb. .29 - —
bgs., l.c.l., divd. lb. .31¾- —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.60 - 2.80
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
dl-Alanine, dms. 100-lbs or more, f.o.b works lb 5.25 - —
dms. 1-99 lbs., same basis lb.10.00 - —
Aldol, 95%, dms., t.c.l., works lb .23 - —
Aldrin, tech. fib. dms. c.l., t.l. divd lb .99 - —
fib dms. t.c.l. divd lb 1.04 - —

ALCOHOLS
Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs lb. 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., divd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W of Rockies
Allethrin, 90%, dms., frt. alld lb.28.80 -28.90
Soln. 20% dms., 200-2,000 lb. lots, frt alld lb. 6.50 6.55
2½% dms frt alld lb. .95 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. divd. lb. .32½- —
dms., t.c.l., divd. lb. .34 - —
tanks, divd. lb. .30 - —
Allyl bromide 55-lb chys 5,005 lbs or more, works lb 1.50 - —
55-lb chys., 1,045 to 4,[illegible] lbs works lb 1.55 - —
55-lb chys. 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., divd lb 17½- —
dms., t.c.l., divd lb. .19 - —
tanks, divd lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).

Abbreviations
Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz	ounce
		E	east	o-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
approx.	approximately	exp.	expressed	phos.	phosphate
artif	artificial	Ext.	external	photo.	photographic
ASTM	American Society for Testing Materials	F	fahrenheit	pkgs.	packages
		ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
Atl.	Atlantic	f.f.c.	free from chlorine	prod.	producer
Be.	Baume	fib.	fiber	pt	point
bbls.	barrels	f.o.b.	free on board	pulv.	pulverized
bgs.	bags	f.p.a.	free of prussic acid	purif.	purified
bls.	bales	frt.	freight	redist.	redistilled
bots.	bottles	gal.	gallon	refd.	refined
b.p.	boiling point	gran.	granular	refy.	refinery
b.p.l.	bone phosphate of lime	grd.	ground	reg.	regular
		i.&a.	iron and aluminum	resub.	resublimed
b.r.	boiling range			ret.	returnable
bxs.	boxes	i.b.p.	initial boiling point	SD	specially denatured
C	centigrade	imp.	imported		
cbys.	carboys	incl.	included	s.d.	single distilled
CD	completely denatured	indust.	industrial	S E.	southeast
		kgs.	kegs	sec.	secondary
c.i.f.	cost, insurance, freight	l-	laevo	secs	seconds
		lacq.	lacquer	s.g.	specific gravity
cks.	casks	lb	pound	shipt.	shipment
c.l.	carlots	l.c.l.	less carlots	soln.	solution
cns.	cans	l.t.l.	less truckload	s.u.	standard unit
coml.	commercial	liq.	liquid	syn.	synthetic
conc.	concentrated	mfrs.	manufacturers	tanks.	railroad tankcars
CP	chemically pure	m-	meta	tech.	technical
cps.	centipoises	m.a.p.	mixed aniline point	tert-	tertiary
cryst.	crystalline			t.l.	truckloads
cs	cases	min.	minimum	t.w.	tankwagons
ctns.	cartons	m.p.	melting point	USP	U S Pharmacopoeia
cyls.	cylinders	N-	nitrogen		
d-	dextro	n-	normal	vis.	viscosity
dbl.	double	nat	natural	VM&P	varnish makers & painters
denat.	denatured	neut	neutral		
dest-dist.	destructively—distilled	NF	National Formulary	W.	west
		NNR	New and Nonofficial Remedies	whse.	warehouse
dl-	dextro-laevo			w w	water-white
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb 2.75 3.40
NF, bots. lb. 3.00 3.30
sweet, USP, cns., dms. lb .60 .70
Aloe, Cape, cs. lb. 33 .40
powd. cs. lb 66 .85
Curacao, kgs. lb. .75 - —
powd., kgs. lb. .85 - —
Aloin, USP, bbls., dms., kgs. lb. 3.25 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., c.l., works 100 lbs. 4.80 - —
Lump, dms., works 100 lbs. 5.55 - —
Powd., dms., works 100 lbs. 5.70 - —
Alum potassium, gran., bgs., c.l., works 100 lbs. 5.05 - —
Lump, dms., works 100 lbs. 5.80 - —
Powd., dms., works 100 lbs. 5.95 - —
Alum, potash-chrome, dms lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .0530- —
bgs., l.c.l., works lb. .0655- .0830
Aluminum acetate, basic, fib. dms., l.c.l., works lb. .54 - —
Aluminum chloride coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms. l.c.l., works lb. .16½- —
cryst., dms., c.l. works 100 lbs.21.00 — —
dms., l.c.l., works 100 lbs.21.50 — —
Soln., 32° cbys., c.l., works lb. .0495- —
cbys., l.c.l., works lb. .0570- .1093
tanks, works 100 lbs. 3.95 — —
NF, gran. dms. works lb. .31 .33
Aluminum fluoride tech., anhyd., bgs., c.l., works lb. .16¼ —
bgs., l.c.l., works lb. .17¼ .19¼
bulk, c.l., basis 80% lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, t.c.l. works. 100 lbs.11.50 — —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395- —
bgs., 2,000-20,000 lb lots, same basis lb. .0495- —
bulk c.l. same basis lb. .0330- —
Light, bgs., c.l., t.l., works lb. .08 — —
bgs., t.l., to c.l., works lb. .09 — —
bgs., l.t.l., works lb. .10 — —
Aluminum hydroxide, dried, USP XV fib dms., works lb. .82½ — —
fib dms., contract, works lb. 79½ — —
gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 — —
9-9½% Al_2O_3, fib dms. works. lb. .19 — —
fib dms. contract works lb. .18 — —
Aluminum hydroxide, tech. powd., (see Aluminum hydrate)
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb lots, frt. alld lb. .2610- —
50-lb pigs 10,000-lb lots frt alld. lb. .24 - —
Aluminum oxide, amorphous (see Alumina, calcined)
Aluminum paste lining, extra-fine, 200-lb. dm. divd lb. .70 - —
Standard lining, dms lb. .47½- —
Aluminum powder lining, extra-fine, 250-lb. dm., divd lb. 1.12 - —
Standard lining, dms lb. .82 - —
Aluminum resinate, precip., 2.1% Al, dms lb. .45 — —
Aluminum stearate, dibasic, ctns. c.l lb. .39 — —
ctns., t.c.l. lb .40 .44
Monobasic, ctns., c.l. lb. .39 — —
ctns., t.c.l. lb. .40 .44
Tribasic, ctns., c.l. lb. .39 — —
ctns., t.c.l lb .40 .44
Aluminum sulfate, coml., grd., bgs c.l., works, frt. equald ton 41.00 — —
bulk c.l., same basis ton 40.00 - —
lump, bgs., c.l., same basis ton 44.00 - —
iron-free, bgs. c.l., works, frt. equald 100 lbs. 3.80 - —
bgs. t.c.l., works, frt. equald. 100 lbs. 4.30 5.30
USP, gran., 400-lb dm., works. lb. .30 — —
USP, powd., dms., works lb .27 - —
Aluminum sulfate prices $1 per ton higher in the South
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots oz. 6.50 -10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb 1.35 1.60
Aminoazotoluene base, bbls 100% basis lb 1.15 1.18
p-Aminobenzoic acid, tech, dry, dms., works lb. 1.72 —
2-Amino-4-chlorophenol, tech, solid, dms., frt. alld lb. 2.15 3.85
p-Aminodiphenylamine, tech, solid, dms., frt. alld lb 3.00 —
Aminoethyl ethanolamine, dms., c.l., divd lb. .475 - —
dms., t.c.l., divd lb. .49 — —
tanks, divd. lb. .45 — —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., t.c.l., frt. alld. lb. .45 - —
tanks, frt. alld. lb. .42 - —
m-Aminophenol, dist., dms., ton lots, lb 2.05 - —
dms smaller lots. lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.25 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald, E. of Rockies ton.92.00 - —
refrigeration, tanks, works, frt equald, E. of Rockies ton 94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l works, frt. equald 100 lbs 8.25 — —
bgs. l.c.l., same basis 100 lbs 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .43 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb lots, works lb 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton 325 - —
dms., ton lots, ex whse 100 lbs.22.88 - —
dms., smaller lots, ex whse 100 lbs.24.11 - —
Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.50 - —
dms., t.c.l., works 100 lbs 9.50 - —
Ammonium bichromate dms. works lb 42 .43
Ammonium bifluoride dms. divd lb .2145 .2245
Ammonium bromide, NF, gran., dms., c.l. t.l. frt equald lb 44 — —
dms. l.c.l., same basis lb .46 — —

Ammonium Carbonate—Azelaic Acid

Ammonium carbonate, USP, lump, dms, c.l. lb. .15½- —
Ammonium chloride, white, tech., fine gran., bgs., c.l., works 100 lbs 6.00 —
bgs., l.c.l., works 100 lbs 8.00 8.45
USP, gran., 250-lb. dm. lb .20 - —
Ammonium citrate, dibasic, 250-lb. dm., f.o.b., works lb. .76 • —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works, E lb 45 • —
Ammonium hydroxide (see Ammonia aqeous)
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb 4.51 • —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. 20½- —
dms., l.c.l., frt. alld lb 21½- —
tanks, frt. alld lb 19½- —
Ammonium lignin sulfonate, 50-lb. bgs., c.l., f.o.b. works 100 lbs. 3.25 - —
50-lb. bgs., l.c.l., same basis 100 lbs. 3.75 - 4.25
Ammonium molybdate, CP, cryst., 400 lb. dms., 15,000-lbs. works, lb. 1.35 • —
400-lb. dms., 2,000-lb. contracts, work lb. 1.36 • —
400-lb. dms., works lb. 1.37 • —
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works ton.67.00 • —
Ammonium nitrate, dom., with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.44.00 • —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price ton.67.00 • —
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. 28½- —
Ammonium pentahorate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs., smaller lots, ex whse 100 lbs.16.52 -18.52
Ammonium pentaborate, powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Ammonium phosphate, dibasic, NF., V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —
Ammonium silicofluoride, dms., works lb. .12¼- .13¾
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- .27
Ammonium sulfate, purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Ammonium sulfate, large granular, bulk, c.l., works ton.35.00 • —
bgs., c.l., works ton.40.00 • —
Tech., bulk, c.l., t.l., works ton.52.00 • —
bgs., c.l., t.l., wurks ton.56.00 • —
bgs., l.c.l., t.l., works 100 lbs 3.20 5.20
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 • —
Ammonium sulfide, liq., 40-44%, tanks, frt. equald, 100% basis, ton.160.00 • —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate)
Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 - .26
Tech., soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, comi., 55-gal. dms., ton lots, 100% basis lb 1.15 • —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic, dms lb 4.50 6.00
d-Amphetamine phosphate, fib dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb 4.20 5.60
d-Amphetamine sulfate, 6b. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, 6b. dms., lb. 4.20 5.60
Amyl acetate, ex fusel oil, tech., dist. from 125° to 150°C., dms., c.l., frt. alld E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .16½- —
Amyl acetate, tech., dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Syn., oxo process, dms., c.l., dlvd. lb. .19 - —
dms., c.l., dlvd. lb. .20½- —
tanks, dlvd. lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld lb. .20½- —
tanks, frt. alld. lb. .16½- —
Primary dms., c.l., frt. alld. lb. .20¼- —
dms., l.c.l., frt. alld. lb. .21¾- —
tanks, frt. alld lb. .17¾- —
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .22 - —
dms., l.c.l., frt. alld. E lb. .23½- —
tanks, frt. alld. E lb. .19½- —
1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.70 2.20
p-tert Amyl phenol, dms., c.l., works, lb. .28 - —
dms., l.c.l., works lb. .29 - —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms. lb. 1.40 - 1.50
Anethol, tech., dms. lb. .80 .92
USP, cns., dms. lb. 1.05 - —
Angelica root, bls lb. .50 - 1.00
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., t.l., 20,000 lbs min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms lb. 1.90 - 3.00
Anise seed, Turkish, bgs lb. .30 - —
Spanish, bgs. lb. .40 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99% 150-lb. dms., dlvd lb. 1.15 • —
Anthraquinone, 99.5% bgs., c.l., frt. alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade bgs. l.c.l., same basis lb 1.10 —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines, lb. .32½- —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld, lb. .30 - —
bgs., l.c.l., frt. alld lb .31½- —
Prices of antimony oxide are 2c. higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .44½- —
pails, l.c.l., works lb. .46½- —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb. dm., same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 • —
Apricot kernel oil, USP, dms. lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls lb. .27 - .30
Areca nuts, powd., bbls lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 • —
l-Arginine, free base, dms., 10-kilo 5-kilo lots or more kilo.60.00 • —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 • —
l-Arginine monohydrochloride, dms., 5-kilo lots or more kilo.60.00 • —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .031 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07¼
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. 48 - —
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 • —
Light shades, bbls. lb. 2.85 • —
Asafetida gum, cns lb. .36 • .40
Powd., bbls., dms lb. .75 • .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.80.00 • —
7D, c.l. (30 tons), mines ton.75.00 • —
7F, c.l. (30 tons), mines ton.71.00 • —
7H, c.l. (30 tons), mines ton.61.00 • —
7K, c.l. (30 tons), mines ton.50.00 • —
7M, c.l. (30 tons), mines ton.44.00 • —
7R, c.l. (30 tons), mines ton.43.00 • —
7RF, c.l. (30 tons), mines ton.44.00 • —
7T, c.l. (30 tons), mines ton.41.00 • —
7TF, c.l. (30 tons) mines ton.44.00 • —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher
Ascorbic acid, USP, dms., 100-kilos. kilo. 5.60 • —
dms., less than 100-kilos kilo. 5.85 • —
Ash, black (see Barium sulfide)
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.47.00 • —
ex-whse., 5 tons or more, N. Y., N. J. ton.93.50 • —
select, brilliant black, 340°-360°F fusing pt., bgs., c.l., mines. ton.50.00 • —
270°-295°F fusing pt., bgs., c.l., mines ton.47.00 • —
Petroleum, cut-back, tanks, tankwagon, refy. gal. .09½- —
emulsion, tanks, tankwagon refy. gal. 09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 • —
85-300 penetration, tanks, tankwagon, refy ton.20.00 • —
Aspirin (see Acetylsalicylic Acid)
Atropine, NF, tins oz. Nom.
Atropine sulfate, USP, bots, 10 oz. lots oz. 5.25 - —
Azelaic acid, bgs., c.l., dlvd. lb. .36 - —
bgs., ton lots, same basis lb. .37 - —

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For Uniform Quality—Steady Supply—Prompt Delivery

★ *Ethyl Alcohol* ★ *Butyl Chloride* ★ *Acetic Acid*
★ *Ethyl Acetate* ★ *Isoamyl Alcohol* ★ *Amyl Acetate*
★ *Butyl Alcohol* ★ *Acetone* ★ *Refined Fusel Oil*
★ *Butyl Acetate* ★ *Acetaldehyde* ★ *Proprietary Solvent*
★ *THERMICE brand of CO_2 (gas, liquid, solid)*

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LOS ANGELES—HUBBARD 3-6430

B

Bacitracin, sterile, over 500,000,000 units 50,000 units. .90 - —
non-sterile, over 500,000,000 units, 50,000 units. .65 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs lb. 1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 - —
bgs., t.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works. 100 lbs. 7.00 - —
bgs., t.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., t.c.l., t.l., frt equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., t.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate bbls. c.l., t.l., dlvd lb. .16 - —
bbls., t.c.l., t.l.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 - —
dms. t.c.l., t.l.l. frt equald ton.285.00 - —
Barium peroxide, dms. frt equald. lb .20 - —
Barium stearate, ctns. c.l., frt alld. lb. .41 - —
ctns., t.c.l. same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb dm. lb. .19 - —
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., t.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs. mines ton.30.00 - —
95-75%, bgs., mines ton.30.00 - —
white, water-grd., paper bgs., c.l. St. Louis ton.60.00 -60.25
paper bgs., ex whse New York ton.84.85 - —
Battery acid, cbys., c.l., works E. 100 lbs. 2.35 - —
cbys, t.c.l., works, E. 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ton. 7.00 -10.00
Bay oil, NF Puerto Rican 50-55%, cns. lb. 3.75 - —
NF, Dominica, 50-55%, cns., dms. lb. 3.60 - 4.50
Bayberry wax, bgs lb. .65 - .70
Beeswax, crude, African, bgs. lb. .53 - .54
Brazilian, bgs. lb. .57 - .58
Central American, bgs. lb. .55 - .56
Chilean, bgs. lb. .59 Nom.
Refd. USP bleached white, bricks 100-lb ctns lb. .67 - .69
white, slabs, 100-lb. ctns lb. .66 - .68
yellow, bricks, 100-lb. ctns lb. .60 - .62
yellow, slabs, 100-lb. ctns lb. .59 - .61
Belladonna leaf, bls lb. .25 - .30
Belladonna root, bls lb. .35 - .38
Bentonite, dom 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp., Italian, white high gel., bgs., 5-ton lots, ex-whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .74 - —
Tech., dms., c.l., t.l. lb. .42 - —
dms., t.c.l lb. .44 - —
Benzene, industrial or nitration, tanks, works:
Baton Rouge, La. gal. .31 - —
Bethlehem, Pa gal. .31 - —
Birmingham district gal. .31 - —
Chicago district gal. .31 - —
Cleveland district gal. .31 - —
Geneva, Utah gal. .31 - —
Houston, Tex. gal. .31 - —
Johnstown, Pa. gal. .31 - —
Lackawanna, N. Y. gal. .31 - —
Lone Star, Tex. gal. .31 - —
Lorain, Ohio gal. .31 - —
Minnequa, Colo. gal. .31 - —
Middletown, Ohio gal. .31 - —
Philadelphia district gal. .31 - —
Pittsburgh district gal. .31 - —
Port Arthur, Tex. gal. .31 - —
St. Louis, Mo. District gal. .31 - —
Sparrows Point, Md. gal. .31 - —
Syracuse, N. Y. gal. .31 - —
Terre Haute, Ind. gal. .31 - —
Youngstown, Ohio gal. .31 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., t.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld. lb. .20 - —
dms., l.c.l., l.t.l., same basis lb. .24 - —
USP, bbls., dms., ton lots lb. .46 - —
bbls., dms., 1,000-lb lots lb. .50 - —
Benzoic acid in bags, ½c. lower.

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

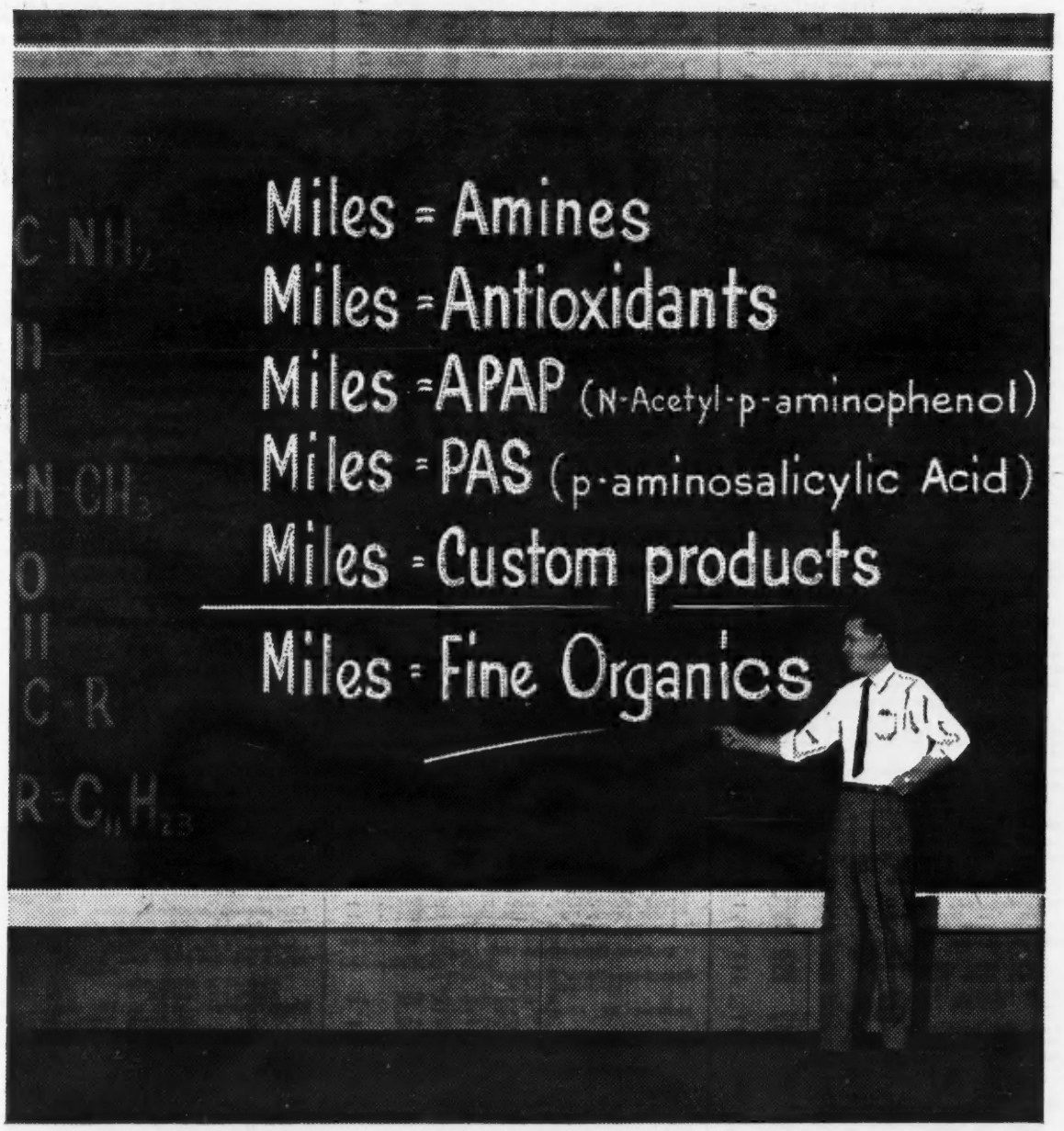
Benzoin gum, Sumatra, cs. lb. .32 - —
Benzophenone, dms lb. 1.35 - 1.40
Benzotriazole, tech. dms., 1,000-lb. lots, works lb. 1.93 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., t.c.l., same basis lb. .23 - —
tanktrucks, dlvd. Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 - 1.08
Benzyl acetate, t.t.c. cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech., dms., dlvd. lb. .47½- .55
Benzyl benzoate, USP, 40-lb. dms. lb. .63 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .22 - —
dms., t.c.l., same basis lb. .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 - —
Benzyl cinnamate, cns lb. 3.80 - 4.00
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis lb. 1.35 - —
1-11 dms., same basis lb. 1.90 - —
Benzyl formate, cns. lb. 1.70 1.85
Benzyl isoeugenol, cns lb. 8.20 8.30
Benzyl propionate, bots lb. 1.30 1.35
Benzyl salicylate, bots lb. 1.50 1.85
Benzylidine acetone, bots lb. 1.65 - 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns lb 56.50 - —
Berberine hydrochloride, bots lb.56.50 - —
Bergamot oil, nat., NF Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxy-naphthoic acid).
Betamethylnaphthalene (see Methyl-naphthalene).
Betanaphthol (see b-Naphtol).
Betanaphthylamine (see b-Naphthol-amine).
Betaoxynaphthoic acid (see b-Oxy-naphthoic acid).
Betaphenylethylamine (see b-Phenyl-ethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin cryst., bots gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00
Bismuth chloride, jars lb 5.11 —
Bismuth hydroxide, dms lb 4.60 4.65
Bismuth metal, bxs, ton lots lb. 2.25 —
Bismuth nitrate, cryst., 200-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 - —
Bismuth subgallate, NF, 200-lb dm. f.o.b works lb 3.98 - —
Bismuth subiodide, fib dms lb 5.37 - —
Bismuth subnitrate, NF, 200-lb dm., f.o.b., works lb. 3.10 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b works lb. 4.15 - —
Bismuth trioxide, 100-lb. dms., f.o.b works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 76,000-lbs. or more, frt. alld lb. .30½- —
bgs., c.l., t.l., less than 70,000-lbs., same basis lb. .31 - —
bgs., t.c.l., same basis lb. .32½- —
Blackberry root bark, bls lb. .50 .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton.160.00 - —
bgs., t.c.l., works ton.170.00 - —
bgs., t.c.l., New York whse ton.215.00 - —
Blood, dried 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls lb .80 .85

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb. 1.90 - —
Peruvian, dms. lb 1.65 —
BON acid, maroons, pure, bbls lb 1.75 —
Resinated, bbls lb 1.50 - —
Bonemeal, steamed, works, E ton.100.00 —
Bone black, dms. c.l., frt. alld lb .1750- .2225
t.c.l., works lb .1950- .2425
Pacific coast bone black prices 3¼c. per lb higher.
Bone phosphate, defluorinated or lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate, tribasic)
Borax, tech., anhyd., 99%, bgs., c.l., works ton 92.00 —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.67 —
bgs., smaller lots, same basis 100 lbs. 8.91 -10.91
bulk, c.l., works ton.83.00 —



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35-60

Borax, tech., gran., decahydrate, 99½%, bgs., c.l., works ton.50.00 • —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 5.31 • —
bgs. smaller lots same basis 100 lbs. 6.56 8.56
bulk c.l. works ton 43.50 —
Tech., pentahydrate, 99½%, bgs., c.l., works ton.64.50 • —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.12 • —
bgs. smaller lots same basis 100 lbs. 7.37 9.37
bulk, c.l. works ton 58.00 —
USP powd. bgs c.l., works ton.54.00 • —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 6.57 • —
bgs., smaller lots, same basis 100 lbs. 7.82 • 9.82

Bordeaux powder tribasic bgs. c.l., dlvd lb. 24 • —
bgs. l.c.l., same basis lb 26 • —

Boric acid tech. anhyd 99.9% bgs., c.l. works ton.335.00 • —
bgs. ton lots, ex whse. New York or Chicago 100 lbs.21.27 • —
Tech, anhyd., 99%, bgs., smaller lots, same basis 100 lbs.22.52 -24.52
cryst. 99.9% bgs. c.l. works. ton.163.50 —
Tech., cryst., 99.9%, bgs., ton lots, ex whse., New York or Chicago 100 lbs.11.67 • —
bgs. smaller lots. same basis 100 lbs.12.92 -14.92

Boric acid, tech., cryst., 99.9%, dms., c.l., works ton.188.50 • —
dms., ton lots, ex whse., New York or Chicago 100 lbs.13.17 • —
dms., smaller lots, same basis 100 lbs.14.42 • —
gran., 99.9%, bgs., c.l., works. ton.112.00 • —
bgs. ton lots, ex whse New York or Chicago 100 lbs. 8.78 • —
bgs. smaller lots same basis 100 lbs.10.03 -12.03
dms. c.l. works ton.137.00 —
dms. ton lots, ex whse, New York or Chicago 100 lbs.10.29 • —
dms. smaller lots same basis 100 lbs.11.54 • —
bulk c.l. works ton.106.00 —
powd., bgs., ton lots, ex whse., New York or Chicago 100 lbs. 9.20 —
bgs., smaller lots same basis 100 lbs.10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs.10.71 • —
dms., smaller lots, same basis 100 lbs.11.96 • —
USP boric acid $25 per ton higher in bags.

Borneol, cns. lb 2.75 • —

Boron trichloride CP 1,800-lb. cyls., works lb 1.25 • —
100-lb cyls. works lb 1.70 • —

Boron trifluoride gas, cyls., t.l., works lb. 70 • —
cyls., l.t.l. works lb. 70 • —

Brimstone (see Sulfur).

Broenner's acid bbls lb 1.53 • —

Bromine purif. cs. c.l., t.l., dlvd. E of Rockies lb. .32 • —
cs. l.c.l. same basis lb .34 .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 • —
ret. dms., l.c.l., same basis lb. .31 .34
tanks, same basis lb .21½ —

Bromochloromethane dms. c.l., frt. equald lb 48 • —
dms., l.c.l., same basis lb 50 • —
tanks, same basis lb 47 • —

Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb 1.93 • —

Bromstyrol, bots lb 5.25 5.35

Brucine, cns. oz. .75 • 1.10

Brucine sulfate, NF, cns. oz. .65 • .85

Buchu leaves, bbls lb. .60 • .65

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown iron oxide, may be found in the I's under Iron oxide, brown.

Butadiene (etd cyls. c.l., refy lb 21 —
cyls., l.c.l., refy lb 22 —
tanks, dlvd lb .12¾ —

Butene-1 tanks works lb .0625 —

Butene-2 tanks works lb .0570 —

n-Butyl acetate ferment, dms., c.l., frt. alld lb. .17 —
dms., l.c.l., same basis lb. .18½ —
tanks, same basis lb. .14½ —
Syn., dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l. same basis lb. .18½ —
tanks same basis lb. .14½ —

sec-Butyl acetate syn. dms., c.l., dlvd E lb. .14¾ —
dms., l.c.l. same basis lb. .16¼ —
tanks, same basis lb. .12¼ —

n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt. alld. E lb. .37½ —
dms., l.t.l., same basis lb. .38½ —
tanks, same basis lb. .35 • —

n-Butyl alcohol, ferment, dms., c.l., frt. alld lb. .18 —
dms., l.c.l. frt. alld lb. .19½ —
tanks, frt. alld lb. .15½ —
Syn. dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l., frt. alld lb. .19½ —
tanks, frt. alld lb. .15½ —

Sec-synthetic dms., c.l., dlvd lb. .15 —
dms., l.c.l., dlvd. lb. .16½ —
tanks dlvd lb. .12½ —

Tert-synthetic, dms., c.l., frt. alld., dlvd. E lb. .16 —
dms., l.c.l., same basis lb. .17½ —
tanks, same basis lb. .13½ —

Butyl aldehyde (see Butyraldehyde).

Butyl chloride dms., c.l., works lb. .37½ —
dms., l.c.l., works lb. .38¼ —

n-Butyl ether dms., c.l., works lb. .35¼ —
dms., l.c.l., works lb. .36 —
tanks, works lb. .33¼ —

Butyl cyclohexyl phthalate, dms., c.l., frt. alld. E lb. .25 • —
dms., l.c.l., frt. ald. E lb. .26½ —
tanktrucks, 1,000 - 1,999 gals., same basis lb. .23 • —
tanktrucks, 2,000 gals., same basis lb. .22½ —

Butyl isodecyl phthalate, dms., c.l., frt. alld. E lb. .24½ —
dms., l.c.l., frt. alld. E lb. .26 • —
tanktrucks, 1,000 - 1,999 gals., same basis lb. .22½ —
tanktrucks, 2,000 gals., same basis lb. .22 • —

Butyl lactate, dms. c.l. frt. alld. E. Rockies lb. .42½ —
dms., l.c.l., same basis lb. .43¼ —
tanks, same basis lb .40 —

Butyl laurate, dms., works lb. .37½ —

Butyl methacrylate, dms., c.l., t.l., works lb. .55 • —
dms. l.c.l., works lb. .55½ —

Butyl octyl phthalate, dms., c.l., frt. alld. E lb. .24½ —
dms., l.c.l., frt. alld. E lb. .26 • —
tanktrucks, 1,000 - 1,999 gals., same basis lb. .22½ —
tanktrucks, 2,000 gals., same basis lb. .22 • —

Butyl oleate, dms., c.l., frt. alld. E. of Rockies lb. .26 • —
dms., l.c.l., same basis lb. .26½ .27
tanks, same basis lb. .24 • —

Butyl phenylacetate, dms. lb 4.50 4.60

Butyl phthalate (see Dibutyl phthalate).

Butyl stearate, CP, dms., c.l., frt. alld. E. of Rockies lb. .28½ —
dms., l.c.l., same basis lb. .29 • .29½
tanks, same basis lb. .26½ —
tech., dms., c.l., same basis lb. .25¾ —
dms., l.c.l., same basis lb. .26¼ .26¾
tanks, same basis lb. .23¾ —

Butylamine (see Mono-, Di- and Tri-butylamine).

tert-Butylamine dms. c.l., t.l., f.o.b. works lb. .47 • —
dms., l.c.l., same basis lb. .47½ —
tc., t.l., same basis lb .45 • —

Butylated hydroxyanisole, food grade dms. dlvd. lb 4.75 —

6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol)

Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol)

1,3 Butylene glycol, dms. c.l., t.l., dlvd lb. 20½ —
dms., l.c.l., t.l., f.o.b. works lb. .22 —
tanks dlvd lb .18 —

p-tert-Butylphenol, bgs., c.l., frt. alld lb. .25½ —
bgs., l.c.l., same basis lb. .26½ —
tanks, same basis lb. .23½ —

Butyraldehyde, dms., c.l., dlvd lb. .22 —
dms., l.c.l., dlvd. lb. .23½ —
tanks dlvd lb. .19½ —

Butyric acid, 99%, dms., c.l., frt. equald lb. .34 —
dms., l.c.l., same basis lb. .34½ —
tanks, same basis lb. .32½ —

Butyric ether (see Ethyl butyrate).

Butyrolactone dms., c.l. t.l., works. lb. .40 • —
dms., l.c.l., same basis lb. .43 —

n-Butyronitrile, dms., c.l., dlvd lb. .56½ —
dms., l.c.l., dlvd. lb. .57½ —
tanks, dlvd. lb. .54 —

C

Cacao butter (see Cocoa butter).

Cadmium CP red, dark shade, bbls., frt alld E of Rockies lb 5.55 • —
Light shade bbls same basis lb 4.65 • —
Medium shade. bbls., same basis. lb. 5.30 • —
Medium, light shade, bbls., same basis. lb. 4.90 • —
Orange-red shade, bbls. same basis lb 4.30 • —

Cadmium CP yellow, all shades, bbls., frt. alld. E. of Rockies lb. 3.02 • —

Cadmium chloride, 400-lb dms., f.o.b. shipping point lb. 1.56½ —

Cadmium iodide 25-lb fib dms. lb 6.75 7.00

Cadmium metal ingots or sticks, ton lots, cs. dlvd lb 1.60 • —

Cadmium nitrate purif. cryst. 400-lb. dms. less than 5,000 lbs. f.o.b. shipping point. lb. .94 • —
400-lb dms. 5,000 lbs. or more, same basis lb. .90 • —

Cadmium-mercury lithopone orange, deep shade bbls. frt alld E. of Rockies lb. 1.73 • —

Cadmium-mercury lithopone red, dark shade, bbls., frt. alld. E. of Rockies lb. 2.03 • —
Light shade, bbls., same basis lb. 1.80 • —

Cadmium-mercury lithopone red, medium shade, bbls., same basis lb. 1.95 • —
Medium light shade, bbls., same basis lb. 1.88 • —
Maroon shade, bbls., same basis. lb. 2.11 • —

Cadmium-selenide lithopone maroon, bbls., frt alld E of Rockies lb. 2.84 • —
Orange, bbls., same basis lb. 1.66 • —

Cadmium-selenide lithopone red, orange-red shade bbls. same basis lb. 1.80 • —
Red dark shade bbls same basis
Dark shade, bbls., same basis lb. 2.64 • —
Light shade, bbls., same basis lb. 1.96 • —
Medium shade, bbls., same basis. lb. 2.31 • —
Medium light shade, bbls., same basis lb. 2.06 • —

Cadmium-selenide lithopone yellow, all shades bbls. frt alld. E. of Rockies lb. 1.27 • —

Caffeine NF citrated dms. 100-lb lots or more lb 4.70 • —

USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld lb. 2.25 • —
hydrous, powd., 150-lb. dms., frt. alld lb. 2.25 • —

USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld lb. 2.40 • —

Cajuput oil, native, cns. lb 1.75 2.00
Redist. USP cns lb 1.90 2.10
Calamine USP dms. lb .34 —
Calamus oil bots lb 12.00 20.00

Calciferol, cryst., 10-kilo or more lots, works gram .54 • —
1-10 kilo lots gram .55 • —

Calciferol in edible oil (see Viosterol).

Calcium p-aminosalicylate trihydrate fib dms. 100 lbs. or more frt adjusted lb 3.10 • —

Calcium bromide NF jars 100 lbs. or more lb 1.10 • —

Calcium carbide standard generator size. 600-lb dms. c.l., dlvd ton.149.00 • —

Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs. c.l. works ton.10.50 —
Chalk, whiting, 325 mesh, bgs., c.l., works ton.32.00 -34.00
water-grd. ½ to 10 microns, bgs., c.l., works ton.30.00 —
10 to 20 microns bgs. c.l., works ton.17.00 -18.00
Precip., dense, bgs., c.l., works. ton.30.00 -38.50
bgs. l.c.l., works ton 45.00 -53.50
medium bgs c.l., works ton 38.00 —
bgs. l.c.l works ton.42.00 -53.00
Surface treated, bgs., c.l., works. ton.42.00 -44.00
bgs., l.c.l., works ton.57.00 -59.00
paraffine bgs. c.l., works ton.117.50 167.50
bgs l.c.l., works ton.137.50 167.50

Calcium chloride, cone., flake or pellet 94-97%, paper bgs., c.l. works. frt. equald. ton.39.30 • —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton.32.00 • —
Liquor, 40%, tanks, frt. equald. ton.12.50 • —
Powd., 77% min., paper bgs., c.l., works, frt. equald. ton.38.00 • —
Purif., gran., dms. lb. .27 —
Solid, 73-75%, dms., c.l., frt. equald. ton.30.50 • —
dms., l.c.l. works. frt. equald. ton.36.00 -73.00
USP, gran., dms. lb. .32 • —

Calcium chromate, bgs., dlvd lb. .37 • —
Calcium cyclamate, 100-lb dms lb. 1.95 • —
Calcium gluconate, USP, AA grade, 100-lb dm., ton lb. 73½ —
USP powd. 100-lb dm. ton lb. .66½ —
Calcium hydride lump, dms. works. lb. 2.20 3.00

Calcium hypochlorite, high test, gran. 45-lb. cs., dlvd E. of Rockies cs.27.50 • —
100-lb. dms., same basis dm.39.50 • —

Calcium hypophosphite, dms., 1,000-lb lots lb. 1.28 • —

Calcium iodide, 25-lb. jars, works. lb. 4.27 • —

Calcium lactate, NF, dms., f.o.b. works lb. .43 • .46

Calcium mandelate USP, 150-lb. dm., works lb. 3.25 • —

Calcium naphthenate, liq., 4% Ca., dms., frt equald lb. .30 • —

Calcium pantothenate, USP 1 kilo or more kilo.20.00 • —

Calcium para-aminosalicylate (see Calcium p-aminosalicylate).

Calcium phenolsulfonate, dms lb. 1.24 1.25

Calcium phosphate, dibasic, USP, dihydrate, bgs., c.l., frt. equald 100 lbs. 8.25 • —
Feed grade, 18½% P, bgs., c.l., t.l., Bonnie Fla., frt. equald ton.81.00 • —
bgs. c.l. t.l., f.o.b. Texas City works ton 75.50 • —
Feed grade, 21% P, bgs., c.l., t.l., frt. equald ton.97.65 • —
bgs., l.c.l. frt equald ton.107.65 • —

Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.

Calcium phosphate, monobasic, bgs., frt. equald 100 lbs. 7.45 • —
bgs., smaller lots, same basis. 100 lbs. 7.95 • —
Tribasic, NF, precip. bgs., c.l., works, frt. equald 100 lbs. 9.25 • —
bgs. l.c.l., frt. equald 100 lbs.10.00 • —

Calcium propionate, any quantity, dms., dlvd E. of Rockies. lb. .34½ —

Prices W. of Rockies 3c. per lb. more.

Calcium phytate bgs., 50 lbs. or more f.o.b. warehouse N Y lb. .39 • —

Calcium resinate, precip. dms., frt. alld., works lb. .45 • —

Calcium silicate, hydrated, bgs., c.l., works lb. .06½ —
bgs., l.c.l., works lb. .07 • —

Calcium silicate paint grade (see Wollastonite).

Calcium stearate, ctns., c.l. lb. .39 • —
ctns., l.c.l lb. .40 • .44

Calomel NF mild, powd., dms., 100-lbs., f.o.b works lb 4.32 • —
NF mild, precip., dms., 100-lbs., f.o.b works lb 5.67 • —

Camphene 46° m.p. dms incl., c.l., works lb. .15 • —
dms. incl., l.c.l., same basis lb. .16½ —
tanks same basis lb. .12½ —

Camphene chlorinated, 67-69% (see Toxaphene)

Camphor, monobromated, NF, dms., kgs lb. 3.63 3.70

Camphor, syn. tech., 1 bbl. or more. lb. .45 • —

USP, powd., bbls., 1,000-lb. lots lb. .56 • —
bbls., smaller lots lb. .57 • —
tablets, ctns., 1,000-lb. lots. lb. .80 • —
ctns., 500-lb. lots lb. .81 • —
ctns., smaller lots lb. .82 • —

Camphor oil, sassafrassy, dms. lb. .32 • .50
White, dms lb. .24 • .40

Cananga oil native, cns. lb. 5.00 6.50
Rectified cns. lb. 7.25 -10.00

Candelilla wax, crude, bgs lb. .57 • .59
Refd., pure, bgs. lb. .61 • .63
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.

Cantharides, Chinese, cs. lb. 1.50 • —
powd. bgs. lb. 1.75 • —
Russian bgs. lb. 2.25 • —
powd. bgs. lb. 2.50 • —

Capric acid, dms lb. 27¼ .29¾
tanks lb. 24¾ —

Caprolactam monomer, flake, bgs., c.l., t.l., f.o.b. frt. equald. lb. .49 • —
bgs., l.c.l., l.t.l., same basis lb. .54 • —
molten, tanks, same basis lb. .46 • .462

Caprylic alcohol 85% dms., c.l., t.l., works lb. .19 • —
dms., l.t.l., same basis lb. .19½ —
tanks, frt. equald. lb. .16½ —

Capryl alcohol, sec., 92-99%, dms., c.l., f.o.b. works lb. .22 • —
dms. l.c.l. f.o.b works lb. .23 • —
tanks, f.o.b works lb. .19½ —

Caprylic acid, dms lb. .27¼ .29¾
tanks lb. .24¾ —

Capsicum (see Pepper red)

Capsicum, oil (see Capsicum oleoresin).

Capsicum oleoresin NF from dom. pepper dms lb. 4.00 • —
NF, from African pepper, dms. lb. 4.50 • —

Caraway oil, NF, dms. lb. 4.00 • 4.25

Caraway seed Danish, bgs. lb. .16 • —
Dutch, bgs. lb. .19 • —

Carbazole, 97%, bbls, ton lots, works lb. 1.05 • —

Carbon black, channel, rubber, beads, bulk, c.l. works lb. .08 • —
bgs., c.l., works lb. .08½ —
bgs., l.c.l., ex whse, or dlvd lb. .16¼ —

Carbon black, furnace, fast extruding, bulk, c.l., works lb. .06¼ —
bgs., c.l., works lb. .06¾ —
bgs., l.c.l., ex whse lb. .13½ —

high abrasion, bulk, c.l., works. lb. .07¼ —
bgs., c.l., works lb. .07¾ —
bgs., l.c.l., dlvd. or ex whse lb. .14½ —

high modulus, bulk, c.l., works. lb. .05¾ —
bgs., c.l., works lb. .06¼ —
bgs., l.c.l., ex whse lb. .13 • —

semi-reinforcing, bulk, c.l., works. lb. .05¼ —
bgs., c.l., works lb. .05¾ —
bgs., ctns., l.c.l. ex whse lb. .12½ —

pigment, high color beads, bgs. c.l., works lb. .78 • —
ctns., l.c.l., dlvd. or ex whse lb. .87 • —

Carbon black, medium color, uncompressed, bgs., c.l., works lb. .14 • —
bgs., l.c.l., dlvd. or whse. lb. .22½ —

Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton.60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E ton.55.00 • —
Solid, bulk, wholesale, works ton.85.00 • —

Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 • —
55-gal. dms., l.c.l., same basis lb. .086 • .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 • —
5-gal. dms., less than 30 dms., same basis lb. .161 • —
tanks, f.o.b. works lb. .0450 —

Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb. .12¾ —
dms., l.c.l., frt. alld. lb. .15¼ —
Tech. consumers dms., c.l., t.l., frt. alld lb. .11¾ —
dms., l.c.l. t.l.t. frt. alld lb. .14¼ —
tanks, frt alld lb. .10¾ .11¼

Carboxymethyl cellulose (see CMC).

Carbromal NF dms., 100-lb lots, works lb 4.00 4.25
dms., smaller lots, works lb 4.10 4.75

Cardamom oil, NF, bots lb.40.00 -43.00

Cardamom seed, bleached "A" lb. 3.15 • —
Bleached "B" lb. 3.00 • —
Decorticated Alleppey, cs. lb. 2.60 • —
Guatemala, cs. lb. 2.45 • —

Cardamom, green, Alleppey, bgs. lb. 1.95 • —
Ceylon, bgs. lb. 2.00 • —

Carmine No. 40, NF, bulk, 100-lb lots or more dlvd. lb.16.80 —
bulk, smaller lots, dlvd. lb.16.90 -17.30

Carnauba wax, chalky, bgs., ton lots. lb. .56 • .58
North Country, No. 2, crude, bgs., ton lots lb. .61 • .63
refd., pure, ton lots lb. .72 • .74
North Country, No. 3, Ceara, crude, ton lots lb. .55 • .57
North Country, No. 3, Parnahyba, crude, ton lots lb. .57 • .59
No. 3, refd., pure, bgs., ton lots. lb. .65 • .66
No. 1, Ceara, yellow, bgs., ton lots lb. .85 • .88
Parnahyba, yellow, bgs., ton l lb. .89 • .92
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher

Carotene, tech. 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½ —
in carrot oil, 5,000,000 to 8,000,000 A units per lb. dms., works million units. .12 • —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 • —

b-Carotene, in vegetable oil, semi-solid suspension 400,000 A units per gram cns kilo.57.60 • —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram. cns kilo.72.00 • —
b-Carotene, pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns kilo240.00 • —

Carvol, bots. lb. 5.00 5.40
Cascara sagrada bark, bulk lb. .32 • —
Casein, dom. edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works lb. .40 • —
80 mesh, bgs., 10,000-lb. lots or more, works lb. .46 • —
Imp., inedible, acid-precip., grd., Argentine bgs. c.l. ex-dock, eastern seaport lb. .18¼ .19¼
Australia, same basis lb. .18¾ .20¼
New Zealand, same basis lb. .24 .25 •

Cashewnut shell liquid, treated, dms., c.l., Newark, N.J lb. .24 • —
dms. ton lots same basis lb. .25 • —
t.w., same basis lb. .22½ —

Cassella acid, dms. frt. alld., 100% basis lb 1.44 1.75

Cassia oil, redist., USP, cns. lb. 6.50 8.00

Cassia, Padang, "A," bls. lb. .28½ —
"B," bls. lb. .27½ —
"C," bls. lb. .25½ —
Korintje "A," bls. lb. .27½ —
"B," bls. lb. .26½ —
"C," bls. lb. .25¼ —

Castor oil, dom., blown, dms., c.l. lb. .2550 —
dms., l.c.l. lb. .2650 —

Castor oil, dehydrated, bodied, dms., c.l. lb. .2710 —
dms., l.c.l. lb. .2860 —
tanks lb. .2510 —
dehydrated, unbodied, dms., c.l., lb. .2560 —
dms., l.c.l. lb. .2660 —
tanks lb. .2360 —
hydrogenated, bgs., c.l. lb. .2425 —
bgs., ton lots lb. .2825 —
bgs., l.c.l., dlvd lb. .3025 —
raw, No. 1, dms., c.l. lb. .2200 —
dms., l.c.l. lb. .2300 —
tanks lb. .2000 —
No. 3, tech., dms., c.l. lb. .2125 —
dms., c.l., lb. .2225 —
tanks lb. .1925 —
refd., deod., dms., c.l. lb. .2650 —
dms., l.c.l. lb. .2750 —
tanks lb. .2450 —
USP, dms., c.l. lb. .2350 —
dms., l.c.l lb. .2450 —
tanks lb. .2150 —

Castor oil, imported, No. 1, Braz., tanks, New York lb. .16¼ —
No. 3, tanks, same basis lb. .16 • —
Sulfonated, 50%, dms., works lb. .19 • .19¼
75% dms. works lb. .19 • .19¼

Castor oil acids, dehydrated, dms. lb. .41¼ .43¼
Split, dms. lb. .33¾ .34¾

Castor pomace, bgs., c.l., works ton.35.00 —
Castoreum nat., cns. lb 5.25 • —
Syn., cns. lb 9.00 • —

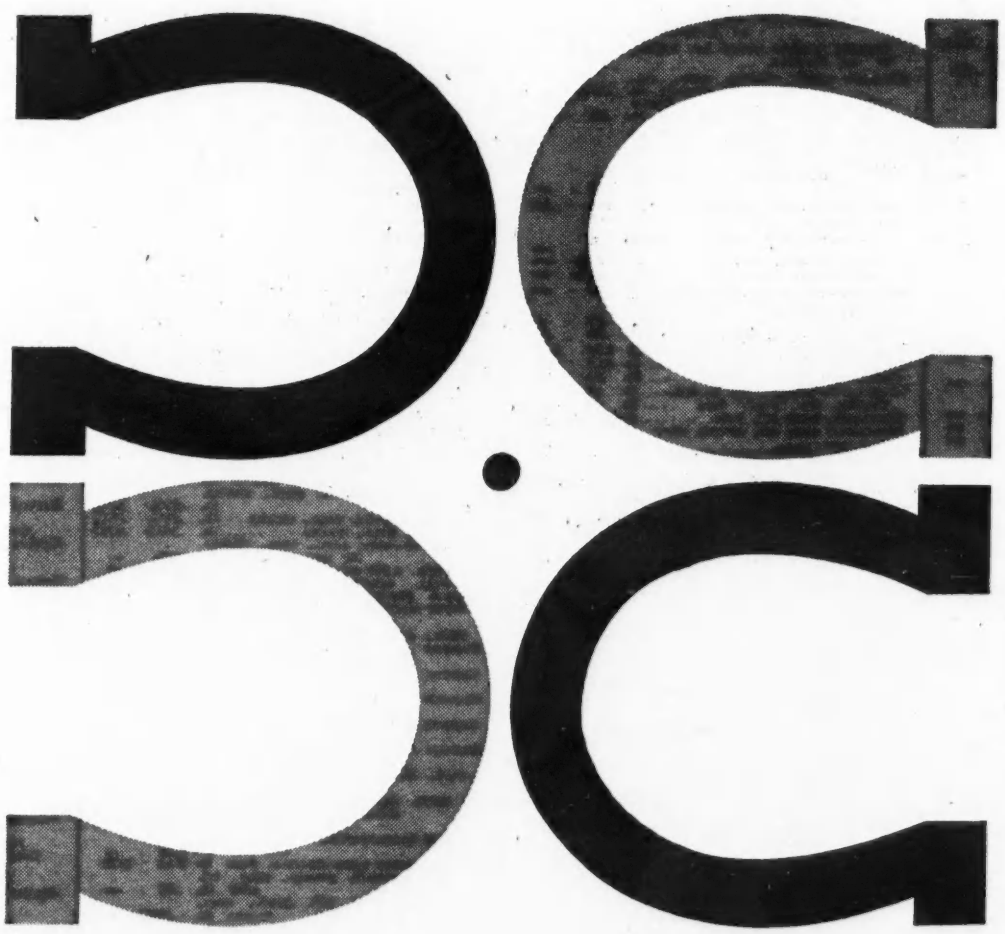
Catechol, CP, cryst., fib., dms., works lb 2.17½ —
Resub., dms., works lb 4.29½ —
Catnip leaves, Southern, bls lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda caustic)

Cedarleaf oil, USP XIII cns., dms. lb 3.30 • 3.50
Cedarwood oil, cns., dms. lb.1.10 • 1.25
Celery seed oil lb.12.00 • —
Celery seed, French, bgs. lb. .34 • —
Indian, bgs. lb. .28 • —

Cellulose acetate, flake, powd., bgs., f.t. dlvd E lb. .36 • .81

Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd E lb. .545 .555
17% butyryl content, bgs. dlvd. E lb. .595 .605
38% butyryl content, bgs., dlvd. E lb. .545 .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 • .555
50% butyryl content, bgs. dlvd. E lb. .585 .595

Cellulose gum, methyl (see Methyl Cellulose).



A PROPER WILD 'UN

Or as we would say in our own rich American idiom: a maverick—referring, of course, to that infamous production run of last month or last year which tied you in knots for two days because of certain ingredient impurities which weren't supposed to be there.

Here at Mallinckrodt, we have almost a century of skill in teaching fine chemicals to behave in proper fashion. When the Mallinckrodt Chemical Works label appears on an iodide compound, for example, be assured that the product is the ultimate in quality—and perhaps just a little better than that. We can serve you well, as we have served others for over nine decades.

Here are some of the Iodides we produce: Potassium Iodide, Potassium Iodate, Calcium Iodate, Hydriodic Acid, Sodium Iodide.

Mallinckrodt Chemical Works
St. Louis / New York / Montreal

MALLINCKRODT

Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works frt alld lb. .57 • —
bgs., smaller lots, same basis lb. .59 • —
standard, low or medium vis., bgs., c.l., t.l., frt. alld. E lb. .57 • —
bgs., ton lots, frt. alld E lb. .59 • —
(Cellulose gum prices 1c. per lb. higher in west.)

Cerium hydrate 74% CeO. fib. dms., 100-lb. lots or more lb. 1.40 • —
77% CeO. fib dms. 100-lb. lots or more lb. 1.74 • —

Cerium oxalate (see Rare earth oxalate)

Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb 1.85 - 1.90
bgs., smaller lots, dlvd. lb 2.15 —

Cetyl alcohol NF fib cns., c.l., t.l., dlvd E lb. .41½- —
fib. cns., t.c.l., same basis lb. .43½- —
tanks, same basis lb. .39 —
Extra, cns., c.l., t.l., dlvd E lb. .48½- —
fib cns. t.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 • —

Chalk (see Calcium carbonate).

Chamomile flowers, Hungarian, lb. .95 - 1.10
Roman, cs. lb. 1.75 - 2.00

Chamomile oil, blue Hungarian, bots lb.350.00 • —

Charcoal, activated NF, fib dms., c.l., works lb. .34 • —
fib. dms., 5-ton lots, works lb. .35 • .35½
fib dms., smaller lots, works lb. .36 .59

Charcoal, black (see Charcoal, activated).

Charcoal, bone (see Bone black).

Charcoal hardwood, lump, bulk, c.l., f.o.b. plant ton.55.00 • —
briquets, bulk, c.l., f.o.b plant ton.80.00 • —
5-lb. paper bgs., c.l., same basis ton.106.00 • —
20-lb. paper bgs., c.l., f.o.b. plant. ton.90.00 • —
40-lb. paper bgs. c.l., same basis ton.86.00 —

Chenopodium oil, NF, cns lb. 4.70 - 4.90

Chicago acid paste bbls., frt. alld. lb. 3.21 • —

Chinawood oil (see Tung oil).

Chloral tech. 94% min. dms., c.l., works lb. .23 • —
dms., t.c.l., works lb. .24 • —
tanks, multiple units, 5 cars, dms., t.c.l. works lb. .21 • —

Chloral hydrate, USP jars, 1,000-lb. lots lb. 1.00 • —
jars, 500-lb lots lb 1.03 • —
jars, 100-lb. lots or less lb 1.05 • —

Chlordan, agricultural dms., c.l., frt alld lb. .65 • —
dms. t.c.l. 5,000-10,000-lb. lots, frt alld lb. .66 • —
clarified, dms., c.l., frt. alld lb. .69 • —
dms. t.c.l. 5,000-10,000-lb. lots, frt alld lb. .70 • —

Chlorinated paraffin, 40%., dms., c.l., frt. alld lb. .15 • —
dms. t.c.l., 10 dms or more, same basis lb. .16 • —
70%, dms., c.l., same basis lb. .18½- —
dms. t.c.l. 10 dms. or more, same basis lb. .19½- —

Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 • —
ctns., t.c.l. works lb. .61 • —
125 cps. ctns, c.l., works lb. .70 • —
300 cps. ctns., c.l., works lb. .80 • —

Chlorine, liq., cyls., c.l., works, frt. equald lb. .11 • —
cyls., t.c.l., Metropolitan area, same basis lb. .12½- .13¾
tanks, single units, works, frt. equald 100 lbs. 3.25 • —
tanks, multiple units, 5 cars, works, frt. equald, same basis 100 lbs. 4.15 • —

Chlorine, liq., tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 • —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis 100 lbs. 6.25 7.25

Chloroacetic acid mono, flake, 99%, purif. dms., c.l lb. .23½- .25½
dms. t.c.l. lb. .24½- —

Tech., flake, 96-97%, dms., c.l., frt. equald lb. .19 • —
dms. t.c.l. frt equald lb. .20 • —

2-Chloro-4-aminotoluene, tech., liq., dms., frt alld lb 1.03 • —

4-Chloro-2-aminotoluene, fused, bbls. lb 1.38 • —

6-Chloro-2-aminotoluene, tech., liq., dms. frt. alld lb. .66 • —

m-Chloroaniline dms. c.l., frt alld. lb. .75 • —
dms., t.c.l., same basis lb. .77 • —
tanks, same basis lb. .73 • —

o-Chloroaniline dms., c.l., frt. alld. lb. .52 • —
dms., t.c.l., same basis lb. .54 • —
tanks, same basis lb. .50 • —

p-Chloroaniline dms., c.l., frt. alld. lb. .77 • —
dms. t.c.l. same basis lb. .79 • —

o-Chlorobenzaldehyde, dms., t.l., works lb 1.05 • —
dms. t.t.l. same basis lb 1.20 • —

p-Chlorobenzaldehyde, dms., t.l., works lb 1.95 • —

o-Chlorobenzoic acid, fib dms., t.l., works lb 1.10 • —
fib. dms., smaller lots, works lb 1.25 • —

p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more works. lb 2.25 • —
fib. dms., less than 2,000-lbs., same basis lb 2.30 • —

Chloroform, tech., dms., c.l., dlvd. E lb. .18 • —
dms., t.c.l., same basis lb. .19 • —
tanks, same basis lb. .17 • —
USP, dms., c.l., dlvd lb. .27 • —
dms., t.c.l., dlvd lb. .30 • —
tanks, minimum 4,000 gals. dlvd. lb. .25 • —

3-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .90 • —
Powd., dlvd E., 100% basis lb. 1.00 • —

4-Chloro-2-nitroaniline, powd. dlvd. E lb. .86 • —

4-Chloro-2-nitrophenol, tech., paste, dms. frt. alld lb. .75 • —

4-Chloro-2-nitrotoluene, tech., solid, dms., frt alld lb. .99 • —

6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .25 • —

o-Chlorophenol, dms., c.l., frt. equald lb. .37 • —
dms. t.c.l. same basis lb. .38 • —

p-Chlorophenol, dms., c.l., frt. equald lb. .37 • —
dms. t.c.l. same basis lb. .38 • —

Chloropicrin, comi., cyls., 180 lbs., frt alld lb 1.07 • —
cyls., 100 lbs., same basis lb 1.08 • —
cyls., 50 lbs., same basis lb 1.14 • —

Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., t.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms.½c. per lb higher

o-Chlorotoluene, tech. dms., t.l., works lb. .37 • —
dms., t.c.l., t.t.l., same basis lb. .38 • —

Choline bitartrate, 100-lb. dms., frt. equald lb. 1.25 • —

Choline chloride, 100-lb dms., frt. equald lb. 1.25 • —

Choline dihydrogen citrate, 100-lb. dms., frt. equald lb. 1.25 • —

Chrome green, CP, dark, light medium blue content, 1-15%, bbls. dlvd E of Rockies. lb. .43 • —

Chrome green, CP, dark, light medium blue content, 16-30%, bbls., same basis lb. .44 • —
31-45%, bbls., same basis. lb. .44 • —
45-49%, bbls.., same basis lb. .45 • —
reduced color 25%, bbls., same basis lb. .20 • —

Chrome green prices 1c. higher W of Rockies.

Chrome orange, CP bbls., dlvd E of Rockies lb. .35 • —

Chrome orange prices 1c higher W of Rockies.

Chrome yellow CP bbls., dlvd E. of Rockies lb. .35 • —

Chrome yellow price 1c. higher W of Rockies.

Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½- —
dms., t.c.l., dlvd. N. Y. Metropolitan area lb. .30 .31

Chromic acid, NF (see Chromium trioxide).

Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb. .10 • —

Chromium fluoride bbls., works lb. .51 • .52

Chromium oxide, hydrated, bbls., fib. dms. c.l., frt alld. lb. 1.20 • —
Pure, bgs., c.l., frt alld lb. .44½- —
bgs., t.c.l., same basis lb. .45¼- —

Chromium trioxide, NF. bots lb. 1.15 • —

Cinchona bark, NF. red, broken, bgs lb .25 • —
NF, yellow, broken, bgs lb. .35 .40

Cinnamic acid, refd., bots lb 2.50 3.50

Cinnamic alcohol, bots lb 1.50 1.60

Cinnamic aldehyde dms. lb. .80 1.00

Cinnamon, Ceylon, No. 2, bgs. lb. .55 —
Ceylon, No. "0000," bgs lb. .64 • —

Cinnamon bark oil, bots. lb.64.00 • —

Cinnamon leaf oil, crude, dms lb. 1.60 2.00

Citral, CP, bots. lb. 4.65 - 5.55
Extra, bots lb. 5.00 7.25
Syn., dms. lb. 6.10 6.65

Citric acid, USP, anhyd., hydrous, gran., 100-lb. bgs., f.o.b. works lb. .27½- —
100-lb. bgs., 10,000-lb. lots, same basis lb. .28 • —
250-lb. dms., c.l., same basis lb. .27•- —
250-lb. dms., 10,000-lb. lots, same basis lb. .28½- —

Citric acid powder ½c. per lb. higher.

Citronella oil, Ceylon, dms. lb. 1.05 • —
Formosan, dms. lb. 1.15 • —

Citronellal, bots. dms. lb. 1.40 - 1.60

Citronellol, bots. dms. lb 1.90 2.50
Synthetic, dms. lb. 1.70 —

Civet, artif., bots lb.13.75 -15.00

Nat. bots. oz 8.50 -15.00

Clay, ball, dom., airfloated, bgs., c.l., Tenn ton.17.50 -21.50
crushed shed moisture bulk, c.l., Tenn ton. 8.00 -11.25
imp., airfloated bgs., c.l., Atl. port net-ton.43.00 47.00
lump, bulk, Atl. port net-ton.31.50 -37.50

Clay, China, dom., dry-grd. airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton.11.00 -17.00
Georgia, bgs., t.c.l., works. ton.13.50 -22.50

Clay, imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me long-ton.23.00 -35.00
white, powd., bgs. c.l. ex dock net-ton.50.00 —
bgs., t.c.l. ex whse net-ton.60.00 -70.00

Cleaner's naphtha, petroleum, 105°F Flash, tankcars New Jersey and New York gal. 18 —
Group 3 gal. .12@75- —
Houston, Texas gal. .145 —

140°F Flash, tankcars, New Jersey or New York gal. .205 —
Group 3 gal. .154 —
Houston Texas gal. .17 —

Cleve's acid, tech. mixed, solid, dms., frt alld lb. 1.05 • —
1.6, tech., solid dms frt. alld lb 77 • —
1.7 tech., dms frt allt. lb 2.42 • —

Clove bud oil, USP, dms. lb. 2.55 • —

Cloves, Madagascar, bgs lb. .36 • —
Zanzibar, bgs. lb. .39 • —

Clove leaf oil, crude, dms lb. 1.10 • —

CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dlvd. E., 100% basis lb. .40 • —
96.4% low, or medium vis. bgs., less than 23,000 lbs., dlvd. E., 100% basis lb. .42 .46
65%, low or medium vis. bgs., c.l., dlvd. E. 100% basis lb. .40 —
t.c.l., dlvd E., 100% basis lb. .42 1.00

CMC, purif. high vis. (see Cellulose gum).

CMC prices W. of the Rockies are ½c. per lb. higher and are on a dlvd. basis.

Coaltar, crude, resale for soln., tanks, works gal. .17 • —

Refd., resale, indust., dms., c.l., ex whse gal. .35 • —
dms., t.c.l., ex whse gal. .39 • —
tanks works gal. 20½- —

Coaltar pitch, aluminum, bulk, works ton.42.00 • —

Carbon, bulk works ton 42.00 • —

Indust., bulk, works ton 44.00 • —

Core bulk works ton 40.50 • —

Fiber, bulk works ton 48.00 • —

Roofing, 140-155°F., Federal Specification RP 381 Type I tanks, works ton.41.00 • —

Cobalt acetate, 23.4% Co dms. dlvd lb 1.04 • —

Cobalt blue, genuine, 250 lb bbls., dlvd E of Rockies lb. 4.90 • —

Cobalt blue prices 1c. higher W. of Rockies

Cobalt blue (imitation see Ultramarine blue)

Cobalt carbonate, 42% Co, powd., bgs., dlvd lb. 1.45 • —

Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 • —

Cobalt hydrate, 60-61% Co., dms., dlvd lb. 1.97 • —

Cobalt linoleate, fused 8½% Co., dms lb. .71¼- —
Liq., 6% Co., dms. lb. .44 • —

Cobalt metal, 99% dms., f.o.b. carrier lb. 1.50 • —

Cobalt naphthenate liq., 6% Co., dms., dlvd lb. .48¾- —

Cobalt nitrate 20.1% Co. bbls., dlvd. lb. .75 • —

Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd E of Mississippi R. lb. 1.15 • —

Cobalt oxide, black, ceramic grade, 70-71% Co kgs. same oasis lb 1.12 —

Cobalt oxide prices W of Mississippi R. 3c. per pound higher

Cobalt phosphate powd., 32.1% Co., dms., dlvd lb. 1.35 —

Cobalt resinate, fused, 3% Co. dms lb. .38½- —

Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 • —

Monohydrated, 33% Co., dms., dlvd lb. 1.09 • —

Cobalt tallate 6% Co., dms. dlvd. lb. .44 • —

Cocaine, USP cns., 100-oz lots, f.o.b works oz.17.50 • —

Cocaine hydrochloride, cns. 100-oz lots f.o.b works oz.13.75 • —

Cocillana bark, bls. lb. .20 - .22

Cocoa butter, bgs. lb. .65 • .70

Coconut oil, crude, tanks, New York. lb. .12 • —
tanks, Pac. coast lb. .10¾- —

refined, deod., dms lb. .18 • .19

Coconut acid oil, dist. dms lb. .21½- .24
tanks lb. .19 — —

double dist. (stripped), dms. lb. .22½- .25
tanks lb. .20 • —

Cod oil, dms., spot lb. .08½- .08⅜

Codeine, NF. cns., 100-oz. lots oz.13.25 • —

Codeine hydrochloride cns., 100-oz. lots oz.11.75 • —

Codeine phosphate, USP, cns., 100-oz lots oz.10.25 • —

Codeine sulfate USP cns., 100-oz. lots oz.10.75 • —

Codliver oil, USP, dms gal 1.40 - 1.70

Cohosh root, black, bls lb .20 .25
Blue, bls lb 20 25

Colchicine, USP, bots. 27.50 -29.00

Colchicum root, bls lb. .35 .45

Colchicum seed, bgs. lb. Nom.

Collodion, USP, dms. lb. .32½- —
USP flexible dms. lb. .34 —

Colocynth pulp, bls. lb. .75 • —

Colombo root, bls lb. .16 • .18

Condurango bark bls lb. .18 • .20

Copaiba balsam, cns., dms. lb. .85 • .95

Copaiba oil, cns. lb. 1.35 2.00

Copper acetate bbls., c.l., works. lb. .53 • —
bbls., t.c.l., works lb. .54 • —

Copper carbonate, 55%, dark dense, c.l., works lb. .3545- —
bgs., t.c.l., works lb. .3695- —

Copper chloride, cupric, anhyd., dms., works lb. .44½- .45
cryst., dihydrate, dms., works. lb. .30¾- .31¼
cryst., dried, dms., works lb. .38¾- .39¼
cuprous, dms., works lb. .3995- .4295

Copper cyanide, tech., dms., 20,000-lb lots or more lb. .609 —
dms., 1,000-lb. lots or more lb. .619 —
dms., smaller lots lb. .639 .65

Copper gluconate, dms lb. 3.20 —

Copper hydrate dry, dms, c.l., frt. E. of Miss lb. .52½- —
dms., t.c.l., same basis lb. .53 • —

Copper metal, electrolytic dlvd. Valley, basis lb. .31 • —

Copper naphthenate liq., 8% Cu, dms. frt alld lb. .26½- —

Copper nitrate, tech., cryst. dms., works lb. .30¾ .32¾

Copper oleate, solid, 9% Cu, dms., works lb. .45 • —

Copper oxide, black bbls., 100-5,000-lb. lots, works lb. .47 • —

red., 97%, USN Type I, bbls., 100-5,000 lbs. lots lb. .47½- —

90%, USN Type II, bbls. 100-5,000-lb lots or more, works lb. .45½- —

Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 • —
10% active quinolinolate dms lb. 1.14 1.15

Copper resinate, precip., dms., frt. alld lb. .47 • —

Copper sulfate, CP, gran., dms., works lb. .1885- —

Cryst., 99%, bgs., c.l., works 100 lbs.12.50 • —
bgs., t.c.l., works 100 lbs.13.00 -15.50

Monohydrated, 35%, dms., c.l., works 100 lbs.23.35 • —
dms., t.c.l., works 100 lbs.24.10 • —

Copper sulfate, tribasic, distributors, 50-lb. bgs., c.l., works 100 lbs.28.60 • —
bgs., t.c.l., works 100 lbs.30.10 • —

Copper undecylenate, dms lb 2.45 • —

Copra, Atl., Gulf ports ton.155.00 • —
Pac. coast, c.i.f. ton.150.00 • —

Coriander oil, USP, bots. lb. 5.75 - 6.25

Coriander seed, Moroccan, bgs. lb. .19 • —
Rumanian, bgs. lb. .17 • —
Yugoslavian bgs lb 08½ —

Corn oil, crude, tanks, works lb. .21 • —
Foots, (soapstock, 95% acid), tanks, New York lb. .05¾- —
Refd., salad, dms lb. .2691- .2715
tanks lb. .2491- —

Corn oil, acid, dms. lb. .16 • .18½
tanks lb. .13½- —

Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 • —
paper bgs., t.c.l 100 lbs. 7.45 • —

Corn syrup, 43° Be., tanks, dlvd. N.Y. 100 lbs. 6.15 • —
non-ret. dms., c.l., same basis, 100 lbs. 7.23 • —

Corrosive sublimate (see Mercuric chloride)

Cortisone acetate, USP bots., kilo or more gram .85 • .90

Costus oil, bots oz. 6.00 • —

Cottonseed meal, 41%, bgs., Memphis ton.68.00 • —

Cottonseed oil, crude, tanks, South, Est lb. .13 • .13½
tanks, Valley lb. .12⅞- —
tanks, Tex., Waco lb. .12¾- —

Foots (soapstock, acid 95%), New York, tanks lb. .04¼- —
Refd., salad, dms lb. .18¼- .18½
tanks lb. .16¼- —

Cottonseed oil acids, dist., dms lb. .16 • .18½
tanks lb. 13½- —

Coumarin, NF, cryst., dms. lb. 3.20 3.30

Cramp bark, NF bls. lb. .90 1.00

Cream of tartar (see Potassium bitartrate).

Creosote carbonate, NF bots. chys., lb. 3.05 3.26

Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 • —

Crude, soln 80%, tanks, works. gal. .226 • —

Refd., dms., c.l., works gal. .50 • —
dms., t.c.l., same basis gal. .62 • —
tanks, same basis gal. .38 • —

West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.

Creosote, beechwood, chys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 • 1.77

Hardwood, NF, chys., dms., same basis lb. 1.42 • 1.67

Pinewood, dms., incl., c.l., works. lb. .0611- —
dms. incl., t.c.l., works lb. .0684- —
dms. incl., t.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —

Creosote oil (see Creosote, coaltar).

Cresol, tech. 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret dms., t.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 • —

USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same lb. .18 • —

Cresol, USP, 50%, 204°C., dry above 207°C, wide distillation range non-ret dms., t.c.l., same basis. lb. .19 • —
tanks, same basis lb. .16 • —

m-Cresol, 95-98% dms., c.l., works. lb. .60 • —
dms., t.c.l., works lb. .61 • —

m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 • —
dms., t.c.l., same basis lb. .19 • —
tanks, same basis lb. .16 • —

2.97% 2°C. dms., c.l., frt. equald. lb. .22 • —
dms., t.c.l., same basis lb. .23 • —
tanks same basis lb. .20 • —

o-Cresol 30.5°C. m.p and over, ret., dms. c.l., frt equald lb. .17 • —
ret dms., t.c.l., same basis lb. .18 • —
tanks, same basis lb. .15 • —

30°-30.49°C m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., t.c.l., same basis lb. .17½- —
tanks, same basis lb. .14½- —

29°-29.9°C, m.p., dms., c.l., frt. equald lb. .16 • —
ret. dms., t.c.l., same basis lb. .17 • —
tanks, same basis lb. .14 • —

25°-28°C m.p., dms. c.l., frt. equald lb. .15 • —
ret. dms., t.c.l., same basis lb. .16 • —
tanks, same basis lb. .13 • —

p-Cresol, 98%, dms., c.l., f.o.b., frt. alld. lb. .50 • —
dms., t.c.l., same basis lb. .52 • —
tanks, same basis lb. .45 • —

p-Cresyl methyl ether, cns lb. 1.80 - 2.05

Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l. frt equald gal. 1.35 • —
dms., t.c.l., same basis gal. 1.40 • —
tanks, same basis gal. 1.15 • —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 • —
dms., t.c.l., same basis gal. 1.25 • —
tanks, frt. equald gal. 1.00 • —
Imp., metapara content 25% or less, f.o.b. works, frt. equald. to competitive points, c.l. gal. 1.15 • —
t.c.l., f.o.b., works gal. 1.20 • —
tanks, same basis gal. 1.00 • —

Crotonaldehyde, 91-93% dms., t.c.l. works lb. .25 • —

Crotonic acid, 200-lb. dms., c.l., dlvd lb. .49 • —
dms., t.c.l., dlvd lb. .51 • —

Cryolite, nat., indust., bgs., c.l., works 100 lbs.13.00 • —
bgs. t.c.l. works 100 lbs.14.25 • —

Cubeb oil, cns lb. 8.50 - 8.75

Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 • —
bgs. t.t.l. works lb .22 • —

Cubeb berries, NF, bgs. lb. 1.30 • —
Powd., cs. lb. 1.45 • —

Cumene dms., c.l., works lb. .12 • —
dms., t.c.l., works lb. .14 • —
tanks, works lb. .11 • —

Cumin seed, Iranian, bgs lb. .17 • —
Turkish, bgs. lb. .16½- —

Cumin seed oil bots., cns lb.15.50 -17.00

Cyanamide fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract. ton.57.00 • —
pulv., 21% N bgs., works, unit-ton. 2.85 • —

Cyanamide, indust. grade, bgs., c.l., works ton.75.00 • —
bgs., t.c.l., works ton.96.00 • —

Indust. grade, 6-16 mesh, dms., c.l., works ton.120.00 • —
dms. t.c.l., works ton.140.00 • —

Cyclohexane, 99%, tech., dms., c.l., dlvd. E of Rockies gal. 1.02 • —
dms. t.c.l. same basis gal. 1.10 • —
dms., c.l. dlvd W of Rockies gal. .77 • —
dms., t.c.l., same basis gal. .85 • —
tanks, works gal. .55 • —

Cyclohexane, 93%, tech., 40-dm. lots or more, f.o.b. works gal. .56 • —
5-39 dms. same basis gal. .60 • —
tanks, same basis gal. .36 • —

Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .30½- —
dms., t.c.l. works, same basis. lb. .31½- —
tanks, works, same basis lb. .28 • —

Cyclohexanone tech., dms., c.l., works lb. .33½- —
dms., t.c.l. works lb. .34½- —
tanks, works lb. .31 —

Cyclohexylamine, tech., dms., c.l., works lb. .49 • —
dms., t.c.l., works lb. .50 • —
tanks, works lb. 47 • —

Cypress oil, bots. lb. 5.30 —

D

2,4-D tech, bgs., dms., c.l., works, frt. equald lb. .40 • —
bgs. dms. t.c.l., same basis lb. .45 • .49

2,4-D butyl ester dms. c.l. works. lb. .43 • —
dms., t.c.l., same basis lb. .48 • .52
tanks, same basis lb. .42 • —

2,4-D isopropyl ester, dms., c.l., works lb. .43 • —
dms., t.c.l., works lb. .48 • .52
tanks, works lb. .42 • —

Dandelion root, bls lb. .35 .40

DDD, tech, flake, grd., fib. dms., c.l., works lb. .45 • .47
tib dms., t.c.l., works lb. .46 • .48

DDT, flake or lump, bgs., c.l., dlvd lb. .17 • —
bgs., smaller lots, same basis. lb. .19 • —
fib. dms., c.l., same basis lb. .18 • —
fib dms., smaller lots, same basis lb. .21 • —

Powdered DDT 1c. per pound higher.

DDVP (see Dimethyl dichlorovinyl phosphate).

1-Decanol, tech., dms., c.l., dlvd. E. lb. .41½- —
dms., t.c.l., dlvd. E lb. .43½- .44⅛
tanks, dlvd. E lb. .37½- —

Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .20½- —
dms., t.c.l., dlvd lb. .22 • —
tanks, dlvd. lb. .18 • —

Perfume grade, bots. lb 1.00 2.00

Decyl alcohol, normal (see 1-Decanol).

COATING FORMULATORS:

How Shell's new PENToXONE* and PENToXOL* solvents can save money, improve formulations and eliminate the need for specialty high boilers

SHELL'S PENToXONE and PENToXOL are unusually active high boiling solvents. Together, they constitute a virtually complete high boiler inventory.

Below is solubility data for 30 important resins in PENToXONE and PENToXOL solvents.

With *acrylics, nitrocellulose* and *alkyds,* these new Shell solvents can improve your formulations.

With *vinyls,* PENToXONE lowers solvent cost and improves odor.

With *thermosetting acrylics, epoxies* and *cellulose acetate butyrate,* both PENToXONE and PENToXOL give excellent film properties.

In *urethane systems,* PENToXONE solvent has low isocyanate reactivity, eliminates need for premium priced upgraded solvents.

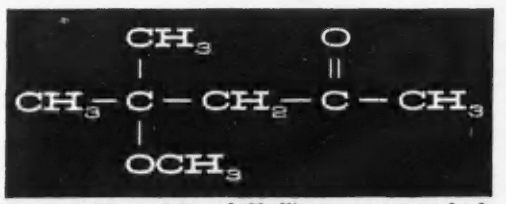
In *polyvinyl butyral lacquers,* PENToXOL can lower solvent cost by 11¢ per gallon and almost double water resistance.

If you'd like to receive samples, plus technical bulletins on all of these applications, write any of Shell's nine Industrial Chemical Division Offices, or directly to Shell Chemical Company, 110 West 51 Street, New York 20, N. Y.

Solubility of resins[1] in Shell's PENToXONE and PENToXOL solvents.

Resin	Supplier	PENToXOL* Solvent	PENToXONE* Solvent
		Viscosity, Cps., 25° C	
Nitrocellulose			
R.S. ½-Second Grade, Eight Grams per 100 Mls	—	100	67
S.S. ½-Second Grade, Eight Grams per 100 Mls	—	58	38
Acryloid A-21, 15% Weight	Rohm & Haas Co.	30	22
Acryloid B-44, 15% Weight	Rohm & Haas Co.	25	20
Acryloid B-66, 15% Weight	Rohm & Haas Co.	25	15
Acryloid AT-50, 30% Weight	Rohm & Haas Co.	90	63
Bakelite BKS-2600	Union Carbide Plastics Co.	87	46
Amberol F-7	Rohm & Haas Co.	37	19
Methylon 75108	General Electric Co.	11	5
Beetle 227-8	American Cyanamid Co.	31	26
Uformite F-240	Rohm & Haas Co.	11	7
Beckamine P-196	Reichhold Chemicals Inc.	14	8
Cymel 248-8	American Cyanamid Co.	19	11
Uformite MM-55	Rohm & Haas Co.	23	14
Resimene 872	Monsanto Chemical Co.	29	16
Cellolyn 102	Hercules Powder Co.	18	9
Amberol 801	Rohm & Haas Co.	32	17
Aroplaz 2480	Archer-Daniels-Midland Co.	27	24
Rezyl 412	American Cyanamid Co.	13	14
Cellolyn 502	Hercules Powder Co.	25	19
Cellolyn 582	Hercules Powder Co.	17	12
Duraplex ND 77B	Rohm & Haas Co.	42	31
Aroplaz 6006	Archer-Daniels-Midland Co.	27	23
Cycopol 102	American Cyanamid Co.	80	62
Half-Second Butyrate 10% Weight	Eastman Chem. Products, Inc.	117	75
Vinylite XYHL, 5% Weight	Union Carbide Plastics Co.	55	—
Parlon P	Hercules Powder Co.	1260	630
Buton 200	Enjay Chemical Co.	45	31
Epon® 1002, 50% Weight	Shell Chemical Co.	898	240
Epon® 1007	Shell Chemical Co.	229	107

(1) Commercially available resin reduced to 30 per cent weight solids, except as indicated. Viscosities of resulting solutions measured in absolute units with capillary tube viscometers.



Remarkable activity of Shell's PENToXONE high boiling solvent comes from this unique keto-ether structure. The COC of ethers and the double bond O of ketones combine for double action solvency.

Shell's PENToXOL solvent is a very closely related glycol ether.

Both these solvents are true high boilers. PENToXONE'S total evaporation time is 2450 seconds. PENToXOL'S is 3375 seconds.

*Shell Trade Mark.

SHELL

Shell Chemical Company

Industrial Chemicals Division

Deertongue Leaves—Dyes

Deertongue leaves, bls. ..... lb. .80 - .60
Defluorinated phosphate, feed grade, 14% P paper bgs., c.l., t.l., Tupelo, Miss ton.52.00 - —
18% P, paper bgs, c.l., t.l., Muscatine, Iowa ton.71.25 - —
paper bgs, c.l., Plant City, Fla. ton.61.25 - —
paper bgs, c.l., t.l., Port Arthur, Tex ton.65.75 - —
paper bgs., c.l., works, Wales Tenn ton.66.00 - —
19% P, paper bgs., c.l., t.l., works, Houston, Tex ton.69.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices
Degras common (15-17% free fatty acid), 400-lb dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb dms lb. 13 - —
Denatured alcohol, ethyl CD-18, CD-19, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l., same basis gal. 74½ .80½
tanks dlvd. same basis gal. 53½ —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd E of Rockies gal. .72 —
dms. t.c.l. same basis gal. 77 .83
tanks same basis gal. 56 —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1 dms., dlvd E of Rockies gal. .70½ —
dms. t.c.l. same basis gal. 75½ .81½
tanks, same basis gal. 54½ —
SD2B, dms. c.l. dlvd E of Rockies gal. .69 —
dms t.c.l. same basis gal. 74 .80
tanks, same basis gal. 53 —
SD3A dms. c.l. dlvd E of Rockies gal. .68 —
dms t.c.l same basis gal. 73 .79
tanks, same basis gal. 52 —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½ —
dms., t.c.l., same basis gal. 75½ .81½
tanks same basis gal. 54½ —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l., same basis gal. 76 .82
tanks same basis gal. 55 —
SD29, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l., same basis gal. 74½ .80½
tanks, same basis gal. 53½ —
SD30, dms., c.l. dlvd. E. of Rockies gal. .68 —
dms., t.c.l., same basis gal. 73 .79
tanks, same basis gal. 52 —
SD35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l., same basis gal. 76 .82
tanks, same basis gal. 55 —
SD-40, dms., dlvd. E. of Rockies, gal. .70½ - —
dms., t.c.l., same basis gal. 75½ .81½
tanks, same basis gal. 54½ —
For anhyd. alcohol on above formulas prices are 7c per gal. higher
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb..15.00 - 17.00
dl-Desoxyephedrine hydrochloride, dms lb 6.40 - —
Dextrin, corn, gum, paper bgs., c.l., works 100 lbs. 9.19 - —
paper bgs., l.c.l. ..... 100 lbs. 9.34 - —
canary dark, paper bgs., c.l. 100 lbs. 9.03 - —
paper bgs., l.c.l. ..... 100 lbs. 9.18 - —
Indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 8.93 - —
paper bgs., l.c.l. ..... 100 lbs. 9.08 - —
white, paper bgs., c.l. 100 bgs. 8.77 - —
paper bgs., l.c.l. ..... 100 lbs. 8.92 - —
Corn dextrin in cotton bgs. 15c per 100 lbs higher
Dextrose anhyd., comi., bgs., c.l. 100 lbs. 8.65
bgs. l.c.l 100 lbs 8.80 - —
Anhyd. special, aluminum foil lined fib. dms., 200-lb dms 100 lbs.14.70 - —
100-lb. dms. 100 lbs.15.20 - —
Hydrated, coml., bgs., c.l. ex ex whse 100 lbs. 7.45 - —
bgs. c.l., ex whse 100 lbs. 7.60 - —
USP dms. lb. .19¾ - —
Diacetone alcohol, acetone-free, dms. c.l., dlvd lb. .15½ - —
dms., t.c.l. dlvd. ..... lb. .17 - —
tanks, dlvd ..... lb. .13 - —
Tech. dms. c.l., dlvd. ..... lb. .15 - —
dms. t.c.l. dlvd. ..... lb. .16½ - —
tanks dlvd ..... lb 12½ - —
Diacetyl, flavor grade, bots ... lb 3.30 - 4.30
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms. t.c.l. works ..... lb. .33 - —
tanks, works ..... lb. .29½ - —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., t.c.l., works .... lb. .33 - —
tanks, works ..... lb. .29½ - —
Diallylamine, dms., c.l., dlvd. ... lb .98½ - —
dms. t.c.l. dlvd. ..... lb 1.00 - —
tanks, dlvd ..... lb .96 - —
e-Dianisidine dry, tech., fib. dms. lb 2.00 - —
Dibenzyl sebacate, dms., c.l., frt. alld. E. of Rockies lb. .93 - —
dms., t.c.l., same basis ..... lb. .93½ - .94
tanks, same basis ..... lb. .91 —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
t.t.l., dms., same basis lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms. t.t.l., same basis ..... lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. ... lb. .57 - —
dms., t.c.l., same basis ... lb. .60 - —
tanks, same basis .... lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½ - —
dms., t.c.l., t.t.l., dlvd. E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½ - —
dms., t.c.l., t.t.l., dlvd E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl phthalate, dms., c.l., frt. alld. E. of Rockies lb. .29¼ - —
dms., t.c.l., same basis ..... lb. .30¾ - —
tanktrucks 1,000-1,999 gals., same basis lb. .27¼ - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26¾ - —
Dibutyl sebacate, CP, dms., c.l., frt. alld. E. of Rockies lb. .67½ - —
dms., t.c.l., same basis ..... lb. .68 - .68½
tanks, same basis ..... lb. .65½ - —
Dibutyl tartrate, dms., works, frt. alld lb. .65½ - —
Dibutylamine, dms., c.l., dlvd lb. .55½ - —
dms., t.c.l., same basis ..... lb. .57 - —
tanks, same basis ..... lb. .53 - —
Dicapryl phthalate, dms., c.l., frt. alld. E. of Rockies lb. .25 - —
dms., t.c.l., same basis ..... lb. .26½ - —
tanks, same basis ..... lb. .22½ - —
Dicapryl sebacate, dms., c.l., works. lb. .63 —
dms., t.c.l., works ..... lb. .63½ - .64
tanks, works ..... lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾ - —
dms., t.c.l., same basis lb .13¾ - —
tanks, same basis lb .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld E lb. .12 - —
dms. 2,000 lbs. or more same basis lb. .14½ - —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½ - —
dms., t.c.l., or t.t.l., works lb .34 - —
tanks, works lb .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd E lb. .15½ - —
dms., t.c.l., t.t.l., same basis lb. .17 - —
tanks same basis lb .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb .65 - —
dms. t.c.l. same basis lb .75 - —
Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., t.c.l., works lb .06 - —
tanks works lb .03 - —
Dichlorophenoxyacetic acid (see 2,4-D)
Dicyclohexylamine dms. c.l. works lb. .54 - —
dms. t.c.l. works lb. .55 - —
tanks works lb. .52 - —
Dicyclohexyl phthalate, gran. fib. dms c.l. works frt alld. lb. .47½ - —
fib. dms., l.c.l., same basis lb. .49 - —
Dicyclopentadiene dms. c.l., f.o.b. works lb. .14½ - —
dms., t.c.l., same basis lb. .14¾ - —
tanks, same basis lb. .12 - —
Dideeyl phthalate dms. c.l. works. lb. .25½ - —
dms., l.c.l, same basis lb. .27 - —
tankcars, tanktrucks, 2,000 gals lb. .23 - —
tanktrucks 1,000-1,999 gals, same basis lb. .23½ - —
Dieldrin, dms., c.l. dlvd. lb 1.85 - —
dms. l.c.l dlvd lb 1.90 - —
Diethanolamine dms. c.l., dlvd E. lb. .27 - —
dms. t.c.l. same basis lb .28½ - —
tanks same basis lb. .24½ - —
Diethanolamine lauryl sulfate, dms., c.l., frt alld lb. .27½ - —
dms., t.t.l. frt alld. lb. .28½ - —
tanks frt alld lb. .26½ - —
Diethyl barbituric acid (see Barbital)
Diethyl carbonate dms. c.l. f.o.b. works lb. .47½ - —
dms., t.c.l., same basis lb. .48½ - —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms. c.l., dlvd lb. .69½ - —
dms., t.c.l., dlvd. ..... lb. .71 - —
tanks, dlvd ..... lb. .67 - —
Diethyl oxalate dms. c.l., f.o.b. works lb. .42½ - —
dms., t.c.l. same basis lb. .43½ - —
tanks same basis lb. .40 - —
Diethyl phthalate dms., c.l., dlvd. lb. .27¼ - —
dms., t.c.l., dlvd ..... lb. .28¾ - —
tanktrucks, 1,000-1,999 gals, same basis lb. .24¾ - —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .24¼ - —
Diethyl sulfate, dms, c.l., frt. alld E. lb. .21 - —
dms., t.c.l., frt. alld. E lb. .22½ - —
tanks, frt alld. E lb. .18½ - —
Diethyl thiourea dms. c.l., t.l., works lb. .58 - —
dms. t.c.l. same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer dms. c.l. t.l. works. lb 2.30 - —
5-44 dm lots, works lb 2.35 - —
1-4 dm lots, works lb 2.40 - —
N,N-Diethyl-m toluidine, tech., liq., tanks, frt. alld lb. .86 - —
Diethylamine dms. c.l. dlvd E lb. .52 - —
dms. t.c.l., same basis lb. 53½ —
tanks same basis lb. 49½ —
N,N-Diethylaniline dms., c.l., frt. alld lb. .57 - —
dms. t.c.l. same basis lb .58 - —
tanks, same basis lb. 55 - —
Diethylbenzene, 380 lb dms., c.l., t.l. frt alld., Zone 1 lb 17½ - —
f.o.b. Zone 2 lb. .18½ - —
380-lb. dms., t.c.l., c.l., f.o.b. Zone 1 lb. .18½ - —
f.o.b. warehouse points, Zone 2 lb. .20½ - —
tankcars, Zone 1 lb. 15 - —
Zone 2 lb 16 - —
Zone 1 is East of the Rockies Zone 2, West of the Rockies
Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
Diethylene glycol dms. c.l. dlvd E lb. .17¾ - —
dms. t.c.l. same basis lb. .19¼ - —
tanks same basis lb. .15¼ - —
Diethylene glycol diethyl ether, dms., c.l., works lb. .55 - —
dms., t.c.l., works lb. .55¾ - —
Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. .30¾ - —
dms., t.c.l., frt. alld. E lb. .32¼ - —
tanks, frt. alld E lb. .28¼ - —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾ - —
dms., t.c.l., works lb. .31½ - —
tanks, works lb. .28¾ - —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½ - —
dms., t.c.l., dlvd. E lb. .24 - —
tanks dlvd E lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works, lb. .27¼ - —
dms., t.c.l., works lb. .28 - —
tanks, works lb. .25¼ - —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., t.c.l., dlvd. E lb. .22½ - —
tanks, dlvd E. lb. .18½ - —
Diethylenetriamine, dms., c.l. dlvd, E lb. .44 - —
dms. t.c.l. dlvd E. ..... lb. 45½ - —
tanks, dlvd E. ..... lb. 41½ - —
Diethylstilbesterol, USP, bots. 10-kilo lots kilo 100.00 147.50
bots. 1-kilo lot kilo 110.00 152.50
Digitalis leaves, USP, dom., dms lb. 1.25 - —
Digitoxin, USP, bots ..... gram. 3.75 - 4.20
Digiycol laurate, dms., ton lots lb. .32½ - —
Digiycol stearate, dms., t.l. ..... lb. .26 - —
Digivcolic acid, bgs., c.l., t.l., works, lb. .15½ - —
bgs., t.c.l., works ..... lb. .16 - —
Dihexyl sebacate dms., c.l., works, lb. .66 - —
dms., t.c.l., works ..... lb. .67 - —
tanks, works ..... lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate bulk, gram. .028 - .03
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenylmethane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs or more lb. 1.11 - —
dms. 1,050 lbs to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs to 1,050 lbs lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., dlvd, lb. .17 - —
dms., t.c.l., dlvd. ..... lb. .18½ - —
tanks, dlvd ..... lb. .14½ - —
Di-isobutyl phthalate, dms., c.l., dlvd. E lb. .28 - —
dms., l.c.l., same basis ..... lb. .29½ - —
tanks, same basis ..... lb. .25½ - —
Di-isobutylene dms. c.l., dlvd. E lb. .10 - —
dms., t.c.l., dlvd E ..... lb. .11½ - —
tanks, dlvd E. ..... lb. .08 - —
Di-isodecyl phthalate, dms., c.l., frt. alld. E. of Rockies lb. .25½ - —
dms., t.c.l., same basis ..... lb. .27 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .23½ - —
tanktrucks, 2,000 gals., same basis lb. .23 - —
Di-iso-octyl phthalate, dms., c.l., frt. alld. E. of Rockies lb. .25 - —
dms., t.c.l., same basis ..... lb. .26½ - —
tanktrucks, 1,000-1,999 gals. same basis lb. .23 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .22½ - —
Di-isopropanolamine, dms., c.l., dlvd, lb. .23¼ - —
dms., t.c.l., same basis ..... lb. .24¾ - —
tanks, same basis ..... lb. .20¾ - —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½ - —
dms., t.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillweed oil, dom., bots., dms lb. 4.00 - —
Dimethyl anthranilate, cns. lb. 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal dms., dlvd lb. 3.50 - —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd. E lb. .78 - —
dms., l.c.l., dlvd. E lb. .79½ - —
tanks, dlvd E lb. .75½ - —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 - —
dms., t.c.l., dlvd. 100% basis. lb. .79½ - —
tanks, dlvd., 100% basis .... lb. .75½ - —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .26¾ - —
dms., l.c.l., works lb. .27¼ - —
tanktrucks, 1,000-1,999 gals., same basis lb. .24¾ - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .24¼ - —
Dimethyl sebacate, dms., c.l., frt. ald. E. of Rockies lb. 1.30 - —
dms., l.c.l., same basis ..... lb. 1.30½ - 1.31
tanks, same basis ..... lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½ - —
ret. dms., t.c.l., works lb. .18½ - —
tanks, works lb. .16½ - —
Dimethyl sulfide, dms., c.l., works, lb. .17½ - —
dms., l.c.l., works ..... lb. .18½ - .19½
tanks, works ..... lb. .15 - —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., t.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms. t.c.l. frt. equald. 100% basis lb. .38½ - —
tanks, frt, equald, 100% basis lb. .28 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms., t.c.l., frt. equald, 100% basis lb. .35½ - —
tanks, frt, equald., 100% basis lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½ - —
dms., t.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms. frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls., dlvd E. of Rockies, lb. 1.61 - —
Dinitroaniline orange toner prices 1c. higher W of Rockies.
m Dinitrobenzene, 89°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C. dms., c.l., frt. alld. E lb. .17¼ - —
dms., t.c.l. frt. alld E. ..... lb. .17¾ - —
tanks frt alld E. ..... lb. .17 - —
2,4-Dinitrophenol bbls. ..... lb. .41 - —
2,4-Dinitrotoluene, oil, dms. ..... lb. .11 - —
Refd. 63°C. dms. ..... lb. .23 - —
Dioctyl adipate, dms., c.l., frt. alld. E. of Rockies lb. .37½ - —
dms., l.c.l., same basis ..... lb. .39 - —
tanks, same basis ..... lb. .35 - —
Dioctyl phthalate dms. c.l., frt. alld. E. of Rockies lb. .25 - —
dms., l.c.l., same basis ..... lb. .26½ - —
tanktrucks, 1,000-1,999 gals., same basis lb. .23 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .22½ - —
Dioctyl sebacate dms., c.l., frt. alld. E. of Rockies lb. .59 - —
dms., l.c.l. same basis ..... lb. .59½ - .60
tanks, same basis ..... lb. .57 - —
1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½ - —
dms., t.c.l., frt. alld. E ..... lb. .33 - —
tanks, frt. alld. E lb. .29 - —
Prices in the west are 2c per lb. higher.
Dipentaerythritol, bgs. c.l. t.l., dlvd. E lb. .34 - —
bgs., l.c.l., t.t.l., dlvd E lb. .35 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms. t.c.l. works lb. .62 - —
dms., t.c.l. ex whse. gal. .78 - —
tankcars, works gal. .41 - —
Dipentene, steam dist., dms., c.l., works South gal. .72 - —
dms., t.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid 1,000-lb or more, bgs. works lb. .78 - —
Diphenolic polyether acids 1,000-lb. or more, bgs. works lb. 1.00 - —
Diphenyl, bgs. c.l. t.l., works lb. .16¾ - —
bgs., l.c.l., works ..... lb. .18½ - —
tanks, works ..... lb. .15¾ - —
Diphenyl oxide, perfume grade, cns. lb. .85 - .90
Diphenyl phthalate, dms., c.l., works. lb. .51 - —
dms., l.c.l., works ..... lb. .53 - —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .32 —
bgs., l.c.l., same basis lb. .34 —
Refd., fused, tanks, same basis lb. .29 - —
Refd., diphenylamine in dms., ½c. per lb higher
Diphenylguanadine bgs., dms., ton lots, frt. alld. lb. .51 - —
bgs., smaller lots, frt. alld lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., t.c.l. frt. alld. .... lb. .18½ - —
tanks, frt alld ..... lb. .14¼ - —
Dipropylene glycol prices 1c. higher in West.
Dipropylene glycol methyl ether, dms. c.l., dlvd. E lb. .20 —
dms., t.c.l. same basis lb. .21½ —
tanks, same basis lb. 18½ - —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.80 - —
Di-o-tolylguanidine dms., ton lots, frt alld lb. .71 - —
dms., smaller lots, frt alld lb. .72 - —
Di-o-tolylthiourea tech solid, dms., c.l. t.l., frt. alld lb. .55 - —
Ditridecyl phthalate, dms., c.l., frt. alld. E. of Rockies lb. .29¼ - —
dms., l.c.l., same basis lb. .30¾ - —
tanktrucks, 1,000-1,999 gals., same basis lb. .27¼ - —
tanktrucks, 2,000 gals., same basis lb. .26¾ - —
Divinylbenzene, 20-25%, dms., c.l., works, frt equald lb. .20 - —
dms., t.c.l. same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms. c.l. works, 100% basis lb. 1.00 - —
dms., t.c.l., works, 100% basis, lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .50 - —
dms, l.c.l., t.t.l. same basis lb. .52 - —
Dodecylbenzene, dms. c.l. t.o.b., works, frt equald lb. .134 - —
dms., t.c.l. same basis lb. .144 - —
tanks, same basis ..... lb. .11 - —
Dodecylphenol c.l. frt alld. ..... lb. .22½ - —
dms., l.c.l. same basis ..... lb. .23½ - —
tanks, same basis ..... lb. .20 - —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 25-lb.lots, frt. prepaid or alld.
Blue, FD&C, No. 1 ..... lb.15.65 -16.45
No. 2 ..... lb.15.65 -16.45
Green, FD&C, No. 1 ..... lb.15.65 -16.45
No. 2 ..... lb.19.60 -20.40
No. 3 ..... lb.31.30 -32.10
Red, FD&C, No. 2 ..... lb. 3.60 - 4.40
No. 3 ..... lb.19.60 -20.40
No. 4 ..... lb. 6.00 - 6.80
Yellow, FD&C, No. 5 ..... lb. 3.75 - 4.55
No. 6 ..... lb. 3.65 - 4.45
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb and 1-lb. lots, dlvd.:
Black, D&C, No. 1 ..... lb.12.40 -13.00
Brown, D&C, No. 1 ..... lb.16.35 -16.95
Green, D&C, No. 5 ..... lb.17.00 -17.60
No. 6 ..... lb.17.40 -18.00
No. 7 ..... lb.14.35 -14.95
Orange, D&C, No. 3 ..... lb.10.50 -10.95
No. 4 ..... lb.19.60 -20.05
No. 5 ..... lb 3.80 4.25
Red, D&C, No. 17 ..... lb.12.55 -13.15
No. 18 ..... lb.23.55 -24.15
No. 19 ..... lb.15.00 -15.45
No. 21 ..... lb 3.90 4.35
No. 22 ..... lb.10.50 -10.95
No. 28 ..... lb.27.90 -28.50
No. 33 ..... lb.17.00 -17.45
Violet, D&C, No. 2 ..... lb.15.65 -16.10
Yellow D&C, No. 7 ..... lb.10.50 -10.95
No. 8 ..... lb.10.50 -10.95
No. 10 ..... lb.15.10 -15.70
No. 11 ..... lb.14.80 -15.40
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue Ext., D&C, No. 1 ..... lb.15.65 -16.10
Green, Ext. D&C, No. 1 ..... lb.15.65 -16.10
Red, Ext., D&C, No. 1 ..... lb.13.05 -13.50
Yellow Ext. D&C No. 1 ..... lb.10.50 -10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN ..... lb. 1.79 - —
13390 Fast blue SR ..... lb. 1.57 - —
14025 Yellow 2G ..... lb. 1.32 - —
14030 Orange R extra, conc. ..lb. 1.64 - —
14645 Chrome black I ..... lb. .77 - —
14720 Rubine XX, conc ..... lb. 1.76 - —
15510 Orange Y, extra conc. ..lb. .83 - —
15575 Orange RR. ..... lb. 1.10 - —
15620 Fast Red A, conc. ..... lb. 1.77 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL ..... lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb. 1.34 - —
16230 Fast light, orange 2G.... lb. 1.39 - —
17590 Brown PG ..... lb. 3.00 - —
18050 Phloxine 2G ..... lb. 1.16 - —
18055 Fuchsine 6B ..... lb. 1.55 - —
18965 Fast yellow 2G ..... lb. 2.44 - —
19140 Yellow XX ..... lb. 2.48 - —
19555 Yellow NN, conc. ..... lb. 3.67 - —
20170 Brown Y ..... lb. 1.33 - —
20470 Blue black, extra, conc. lb. 1.44 - —
21010 Brown, RX, conc. ..... lb. 1.42 - —
22240 Scarlet B ..... lb. 2.81 - —
22310 Red FC ..... lb. 1.57 - —
22311 Brown MCW ..... lb. 1.59 - —
22610 Blue 2B, extra conc... lb. 1.62 - —
23500 Red 4BX, conc. ..... lb. 1.80 - —
24410 Sky blue FF extra conc.lb. 1.95 - —
24895 Brilliant yellow conc. lb. 3.27 - —
26360 Navy blue 3R, conc. ..... lb. 1.84 - —
26695 Black F, conc. ..... lb. 2.30 - —
26900 Milling Red 3R, conc ..... lb. 2.24 - —
27075 Neutral black 2B, conc. lb. 2.75 - —
27720 Gray L. ..... lb. 2.29 - —
29185 Fast scarlet 4BNC ..... lb. 2.23 - —
30015 Diazo black VJ conc. .. lb. 2.48 - —
30045 Yellow brown K, extra lb. 1.45 - —
30235 Black EB, 200% ..... lb. 1.33 - —
30295 Green BY conc. ..... lb. 1.07 - —
35950 Brown B ..... lb. 2.89 - —
37565 Naphthol SWF ..... lb. 1.85 - —
40900 Yellow 2G ..... lb. 1.44 - —
41000 Yellow OX ..... lb. 2.45 - —
42000 Green V crystals ..... lb. 2.73 - —
42040 Brilliant green G crystals.lb. 3.62 - —
42640 Violet 4BXN ..... lb. 2.43 - —
42090 Blue EG ..... lb. 1.85 - —
42100 Milling green 6B conc. .. lb. 4.78 - —
43830 Brilliant blue BBG ..... lb. 2.44 - —
44045 Blue B, extra conc. ..... lb. 3.61 - —
45170 Red BX ..... lb. 4.76 - —
50415 Nigrosine SSJ ..... lb. 1.03 - —
52015 Blue GXX ..... lb. 2.54 - —
58005 Alizarin red SC ..... lb. 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC supra, double paste lb. 1.75 - —

Why The Enzymes You Use Should Be Pharmaceutical Enzymes

Because the specificity you try to build into your products necessarily starts with the bulk materials you buy, it is unreasonable to expect satisfactory developments for these products if the enzymes you purchase were developed for some industry foreign to your own. You must make certain that the "advantages" of the enzymes you use are indeed *pharmaceutical* advantages.

Here is how you can do it:

Buy Enzymes by the Unit

Units of activity of the enzymes you buy are one of the few real gauges of dollar value. Keep in mind, though, that units *can* be deceptive. You should rely on the expert opinion of your own chemists to tell you if the unit assay of your supplier is based on sound biochemical kinetics. A good test that *you can apply yourself* is to find out which was developed first: the enzyme or the assay. If the answer is "enzyme," be careful, for assays can be designed to magnify the merits of any enzyme already on the shelf, no matter what its real usefulness may be. If the answer is "assay," however, the assay is probably unbiased, as it first had to be used to choose and perfect the enzyme you are now looking at.

Make Sure the Unit is Active Where You Want It

Elementary physiology is sometimes forgotten when claims are made for enzymes. Be careful, therefore, that the pH optima of the enzymes you use fall within the proper physiological ranges. (A bit of inquiry here will reveal the comparative merits of plant, animal, bacterial and fungal enzymes.) Check temperatures and stabilities. It is known that some enzymes will give excellent results even under non-optimum conditions if they degrade slowly enough.

Don't Pay for What You Don't Want

If you want a particular kind of enzymic activity, you should not pay a premium for extraneous activity of a different type that "rides along" in the unstandardized portion of the enzyme preparation. *Pay only for standardized units active on the substrate that concerns you.*

Consider, too, another disadvantage hidden in some enzymes: unwanted bulk. It may not cost you more when you buy it, but it certainly costs you more when you process it. In mixing, filling or tableting, and packaging costs, in lowered utility and consumer appeal, every gram of inactive material costs you money.

Finally, determine that the technical assistance your supplier offers is useful in *pharmaceutical* problems.

Dollar for dollar—by all pharmaceutically meaningful criteria—MYLASE® 100, PROLASE® 300, and CELLASE™ 1000 offer you the best in standardized amylolytic, proteolytic, and cellulolytic activity.

For an indication of what Wallerstein enzymes will do for you, contact Gerry Gray. (For introductory data on digestive enzymes, send for bulletin 701.)

WALLERSTEIN COMPANY

Division of Baxter Laboratories, Inc.

Staten Island 3, N.Y. • GIbraltar 2-6400

Dyes—Ethyl Ether

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale of prototype), contract, dlvd. No.

61570 Alizarin green CG, extra	lb.	4.00	—
63010 Alizarin blue SAPG	lb.	3.90	—
63615 Alizarin blue black B	lb.	3.26	—
69825 Blue BLFD double paste	lb.	2.76	—
70800 Brown BR single paste	lb.	2.03	—

Dyes, coaltar, oil-soluble, 100 lb. drums, dlvd. No.

12140 Oil scarlet BL	lb.	1.87	—
12055 Oil orange 7078 V	lb.	1.38	—
26120 Oil red N 1700	lb.	1.94	—
42535B Methyl violet base	lb.	1.88	—
44045B Victoria blue base	lb.	4.06	—
50415B Oil black 8603	lb.	.80	—
61565 Alizarin cyanine green base,	lb.	6.13	—

Dyes, coaltar, spirit soluble, 100 lb. dms., dlvd., Black RB lb. 3.89 —

Spirit brown GN	lb.	5.30	—
Spirit orange R conc.	lb.	5.87	—
Spirit red B conc.	lb.	6.41	—
Pr 517 Spirit yellow 2R conc	lb.	4.62	—
Pr. 554 Spirit blue THN	lb.	5.06	—

E

Echinacea root, bls.	lb.	1.25	—
Elm bark, grinding, bls.	lb.	.30	.32
Powd., bbls., bxs.	lb.	.60	—
Select, bundles	lb.	.75	—
Emetine hydrochloride, USP. bots	oz.	48.40	—
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd	lb.	2.77	—
Eosin red toner, bbls., works	lb.	1.95	—
Ephedrine, syn., USP, anhyd., bots. 100-oz.lots	oz.	.98	1.00
hydrous, bots., 100-oz. lots,	oz.	.92	—
Ephedrine hydrochloride, NF, dms., 100-oz., f.o.b. works	oz.	.75	—
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works	oz.	.73	—
USP, powd., dms., 100-oz., same basis	oz.	.73	—
Epichlorohydrin, dms., c.l., dlvd	lb.	.29½	—
dms., l.c.l., dlvd.	lb.	.31	—
tanks, dlvd.	lb.	.27	—
Epinephrine base, syn., USP, bots., 100 gram. lots	gram.	.58	—
Epsom salt (see Magnesium sulfate).			
Erigeron oil, cns.	lb.	11.00	—
Ergot, NF, dms., tin-lined	lb.	2.00	2.50
Eserine salicylate, bots.	oz.	34.50	40.00
Eserine sulfate, bots.	oz.	26.00	—
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va	lb.	.18½	—
Ester gum, wood-rosin type, dms., c.l. same basis	lb.	.18½	—
Ether (see specific product)			
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd	lb.	.15	—
dms., l.c.l., dlvd.	lb.	.16½	—
tanks, dlvd.	lb.	.12½	—
Ethyl acetate, nat., ferment. 95-98% dms., c.l., dlvd	lb.	.15¼	—
dms., l.c.l., dlvd	lb	16¾	—
tanks dlvd	lb	12¾	—
99%, dms., c.l., dlvd.	lb.	.15½	—
dms., l.c.l., dlvd.	lb.	.17	—
tanks, dlvd.	lb.	.13	—
Ethyl acetate, syn., 85-88%, dms., c.l., dlvd.	lb.	.16	—
dms., l.c.l., dlvd.	lb.	.16½	—
tanks, dlvd.	lb.	.12½	—
95-98%, dms., c.l., dlvd.	lb.	.15¼	—
dms., l.c.l., dlvd	lb.	.16¾	—
tanks dlvd	lb.	.12¾	—
99%. dms., c.l., dlvd.	lb.	.15½	—
dms., l.c.l., dlvd.	lb.	.17	—
tanks dlvd.	lb.	.13	—
Ethyl acetoacetate, dms., c.l., dlvd.	lb.	58½	—
dms., l.c.l., dlvd.	lb.	60	—
tanks, dlvd.	lb.	.56	—
Ethyl acrylate, dms., c.l., t.l., dlvd.	lb.	.34¾	—
dms., l.t.l., dlvd	lb.	.35¾	—
tanks, dlvd.	lb.	.32¼	—
Ethyl alcohol, 190 pf., USP, tax paid dms., c.l., dlvd. E of Rockies	gal.	20.63	—
dms. l.c.l. same basis	gal.	20.73	20.84
USP, tax-free, dms., c.l., dlvd. E. of Rockies	gal.	.68	—
Ethyl alcohol, 190 pf., USP, tax free, dms., l.c.l., same basis	gal.	.73	.79
tanks, same basis	gal.	.52	—
Ethyl alcohol, absolute 200 pf., tax paid, dms. dlvd E. of Rockies	gal.	21.75	—
dms., l.c.l., same basis	gal.	21.85	21.96
tanks, same basis	gal.	21.59	—
Ethyl alcohol, denatured (see Denatured alcohol, ethyl)			
Ethyl aminobenzoate, USP (see Benzocaine).			
Ethyl amyl ketone, dms., c.l., dlvd.	lb.	.20	—
dms., l.c.l., same basis	lb.	.21½	—
tanks, same basis	lb.	.17½	—
Ethyl benzoate, bots.	lb.	.70	1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E	lb.	.43	—
dms., l.c.l., frt. alld. E.	lb.	.45	—
tanks, frt. alld. E.	lb.	.40	—
2-Ethyl butyl alcohol, dms., c.l., works	lb.	.30	—
dms., l.c.l., works	lb.	.30¾	—
tanks, works	lb.	.28	—
Ethyl butyl ketone, dms., c.l., t.l., works	lb.	.36	—
dms. l.c.l., t.l. works	lb.	.36¾	—
tanks works	lb.	.34	—
Ethyl butyrate dms. works	lb.	.85	1.00
Ethyl carbamate (see Urethane)			
Ethyl cellulose, vis., 4 cps., bgs., 5,000-lb lots or more, frt. alld. E	lb.	.73	—
bgs smaller lots frt alld E	lb.	.75	—
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb lots or more, frt. alld. E	lb.	.68	—
vis., 10,20,50,100,150 cps., bgs. smaller lots, frt. alld. E	lb.	.70	—
Ethyl chloride tech. cyls., works.	lb	.20	.22
dms., works	lb.	.18	.20
tanks works	lb.	.10	—
Ethyl cinnamate, cns	lb.	3.35	3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd E	lb.	.43½	—
dms., l.c.l. dlvd E	lb.	.44½	—
tanks dlvd E	lb.	.41½	—
Ethyl ether, absolute, ACS, dms	lb.	.27	—
Anesthesia, USP dealers, 1-lb. cns	lb.	1.01	—
½-lb. cns	lb.	1.09	—
¼-lb cns.	lb.	1.21	—
Indust., dms., c.l., dlvd.	lb.	.13½	—
dms., l.c.l., dlvd. E.	lb.	.15	—
tanks, dlvd E.	lb.	.11	—

Interested personal service—
always—
when you buy from Eastman

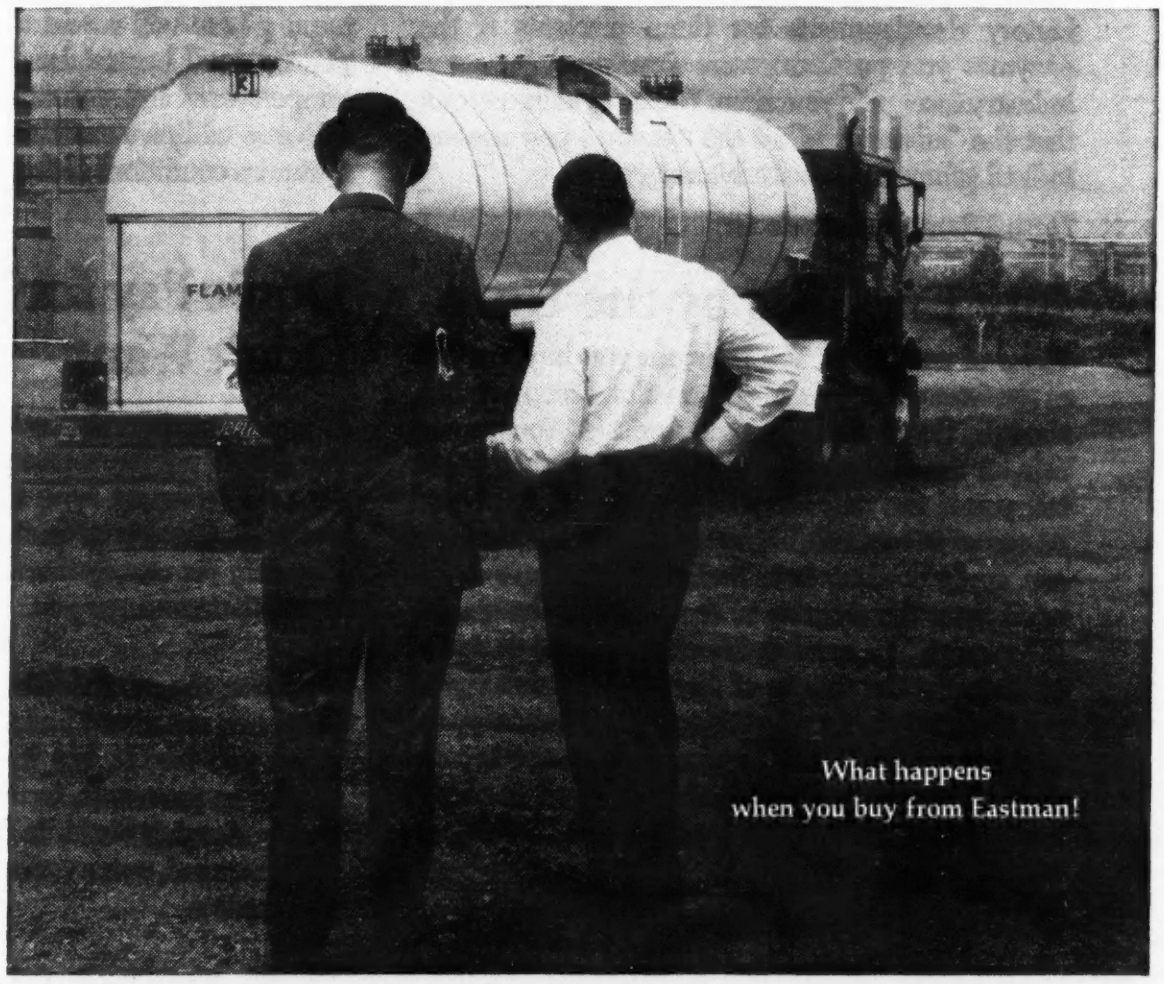
Eastman Ethyl Alcohol

Anhydrous

95%

SDA

Tecsol®
proprietary
ethyl
alcohol



Tecsol is available in principal industrial centers for immediate shipment in drum or bulk through Eastman Chemical Products, Inc., or its distributors.

For properties and shipping information on these and other Eastman products, see Chemical Materials Catalog, page 225, or Chemical Week Buyers' Guide, page 113.

2B...or not 2B, was the question

"Under normal circumstances, and from a customer with all his permits in order, a telephoned request for two tank trucks of SDA-2B Ethyl Alcohol, Monday morning delivery, is a pleasant way to add impressive pounds to a salesman's monthly tally sheet," reports one of our southwestern representatives.

"But, coming as it did at 9 o'clock on a Saturday night, my chances for setting any new sales records and his chances for getting the alcohol looked pretty slim.

"I promised to try...since the customer had to have the alcohol or shut down an important process.

"Our plant switchboard operator in Longview, Texas gave me the home number of the Superintendent of the Alcohol Department and his baby-sitter in turn gave me the number where I could disturb his evening out. He was a little surprised to say the least, but sympathetic as only a production man can be when I explained the short inventory position of the customer, occasioned by an unusual demand for his end product.

"I'm still not sure of how he worked out all the details, but I do know that overtime loading crews, bonded tank trucks, drivers, etc., were rounded up and on hand Sunday morning. With an able assist from the cooperative Alcohol Tax Division the all-important shipment left Longview late Sunday afternoon and was unloading at the customer's plant at 8:00 A.M. on Monday morning."

Routine service to our customers? Not if we want to stay in business. But an idea of the type of personal, interested service that you can expect when you buy from Eastman.

Eastman CHEMICAL PRODUCTS, INC., KINGSPORT, TENNESSEE, Subsidiary of Eastman Kodak Company

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Boston; Buffalo; Chicago; Cincinnati; Cleveland; Detroit; Greensboro, North Carolina; Houston; Kansas City, Missouri; New York City; Philadelphia; St. Louis.
West Coast: Wilson & Geo. Meyer & Company, San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E. lb. .27 • —
dms., l.c.l., t.l., dlvd. E. lb. .38½- —
tanks, dlvd. E. lb. .34½- —
2-Ethyl hexoic acid 1c. higher W. of Rockies.
2-Ethylhexyl acrylate, dms., c.l., t.l., straight or mixed frt. alld. E. lb. .39½- —
dms., l.t.l., same basis lb. .40½- —
tanks, same basis lb. .37 • —
2-Ethylhexyl alcohol, dms., c.l., dlvd. E. lb. .20½- —
dms., l.c.l., dlvd. E. lb. .22 • —
tanks, dlvd. E lb. .18 • —
Ethyl iodide, cbys., works lb. 3.30 • —
Ethyl methacrylate dms., c.l., frt. equald lb. .52 • —
dms., t.l., frt. equald lb. .52½- —
tanks, frt. equald lb 50 —
Ethyl morphine hydrochloride, USP, bots oz. 11.85 • —
Ethyl oenanthate, dms lb. 1.05 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist (see Tetraethyl orthosilicate).
Ethyl silicate 40% available SiO, dms., c.l., dlvd. E lb. .49 • —
dms., l.c.l., dlvd. E. lb. .50½- —
tanks, dlvd. E lb. .47 • —
N-Ethyl-a-naphthylamine, dms., works lb 1.04 • —
N-Ethyl-m-toluidine, tech., liq., tanks frt. alld lb. .84 • —
N-Ethyl-o-toluidine, bbls lb. .88 • —
Ethylamine (see Mono-, Di- or Tri-).
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 • —
dms., t.c.l., frt. alld lb. .58 • —
tanks, frt. alld lb. .55 • —
Ethylbenzene 99% dms., c.l., t.l., frt. equald lb. .14 • —
dms., t.c.l., same basis lb. .16 • —
tanks, same basis lb. .11½- —
Ethylene, contract refy. gate lb. .0475- .052⁵
Ethylene dibromide dms., c.l., frt. equald lb. .30½ • —
dms., t.c.l., frt. equald lb. .31½ • —
tanks, frt. equald lb. .28½ • —
Ethylene dichloride dms., c.l., dlvd. lb .11½- —
dms., t.c.l., same basis lb. .13 • —
Ethylene dichloride, tanks, same basis lb. .09 • —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 • —
dms., t.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Ethylene glycol monobutyl ether, dms. c.l., dlvd. E lb. .22 • —
dms., t.c.l., dlvd. E lb. .23½- —
tanks, dlvd. E lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 • —
dms., t.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., t.c.l., dlvd. E lb. .21 • —
tanks, dlvd. E lb. .17 • —
Ethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 • —
dms., t.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Ethylene glycol monomethyl ether acetate, dms., c.l., works lb. .29 • —
dms., t.c.l., works lb. .29¾- —
tanks, works lb. .27 • —
Ethylene glycol monostearate, flake, 150-lb. ctn lb. .33 • —
Ethylene oxide, dms., c.l., dlvd. E. lb. .21½- —
dms., t.c.l., dlvd. E lb. .24½- —
tanks, dlvd. E lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .40 • —
dms., t.c.l., dlvd. E., 100% basis, lb. .41½- —
tanks, dlvd. E., 100% basis lb. .38 • —
Ethylvanillin, 100-lb. fib. dms., 500-lb. 6.75 • —
less than 500-lb. lb. 7.40 • —
Eucalyptol, USP, cns., dms lb. .85 • 1.40
Eucalyptus oil NF, rectified, 70-75%, dms. lb. .45 • —
NF, rectified, 80-85%, dms. lb. .53 • .62
USP, dms. lb. 1.90 • —
Eugenol, USP, dms. lb. 1.90 • 2.50
Euphorbia herb, bls. lb. .12 • .15

F

F salt paste, tech., dms., works lb. 2.50 • —
Fennel oil, sweet, USP, cns. lb. 2.60 • —
Fennel seed, Argentine, bgs. lb. .16 • —
French, light, bgs. lb. .16½- —
Indian, light, bgs. lb. .16½- —
Yugoslav, light, bgs. lb. .17½- —
Fenugreek seed, Moroccan, bgs. lb. .12 • —
Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works 100 lbs. 8.00 • —
dms., l.c.l., works 100 lbs. 9.00 • —
Ferric chloride 42° Be., photo grade, dms., c.l., works 100 lbs. 7.25 • —
sewage grade, tanks, frt. equald. 100% basis 100 lbs. 4.00 • —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate, gran., dms. lb. .86 • —
Ferric hypophosphite, NF, 175-lb. dm lb. 4.25 • —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. 1.30 • —
Ferric oxides (see Iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs lb. .72 • .78
Ferric pyrophosphate, NF VII, soluble, gran. pearls, 225-lb. dm. lb. .79 • —
Ferric resinate, dms., ton lots, frt. alld lb. .45 • —
Ferric stearate, dms., c.l., frt. alld. lb. .39 • —
dms., t.c.l., frt. alld lb. .40 • .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton. 35.25 • —
bgs., t.c.l., works ton. 36.25 -42.25
bulk, c.l., works ton. 33.25 • —
Ferric-amonium citrate, NF, brown, gran., 100-lb. dms lb. .68 • —
NF, green, gran., 100-lb. dms., frt. equald lb. .68 • —
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., 250-lb dm., f.o.b. works lb. .32½- —
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 • —
Ferrous sulfate, gran., bgs., c.l., works ton. 34.50 • —
bgs., t.c.l., dlvd. Metropolitan area 100 lbs. 3.35 • 4.25
bbls., c.l., works ton. 40.00 • —
bulk, c.l., works ton. 27.00 • —
USP cryst., bbls., dms lb .09½- .10
Fir balsam, Canada, bbls gal. 34.00 -35.00
Oregon, bbls gal. 3.40 4.64
Fir oil, Canada, cns lb. 1.70 • 1.75
Fish oil, refd., alkali, dms lb. .1380- .1430
Kettle-bodied, dms. lb. .1530- .1580
Light-pressed, dms. lb. .1280- .1330
tanks lb. .1080- —

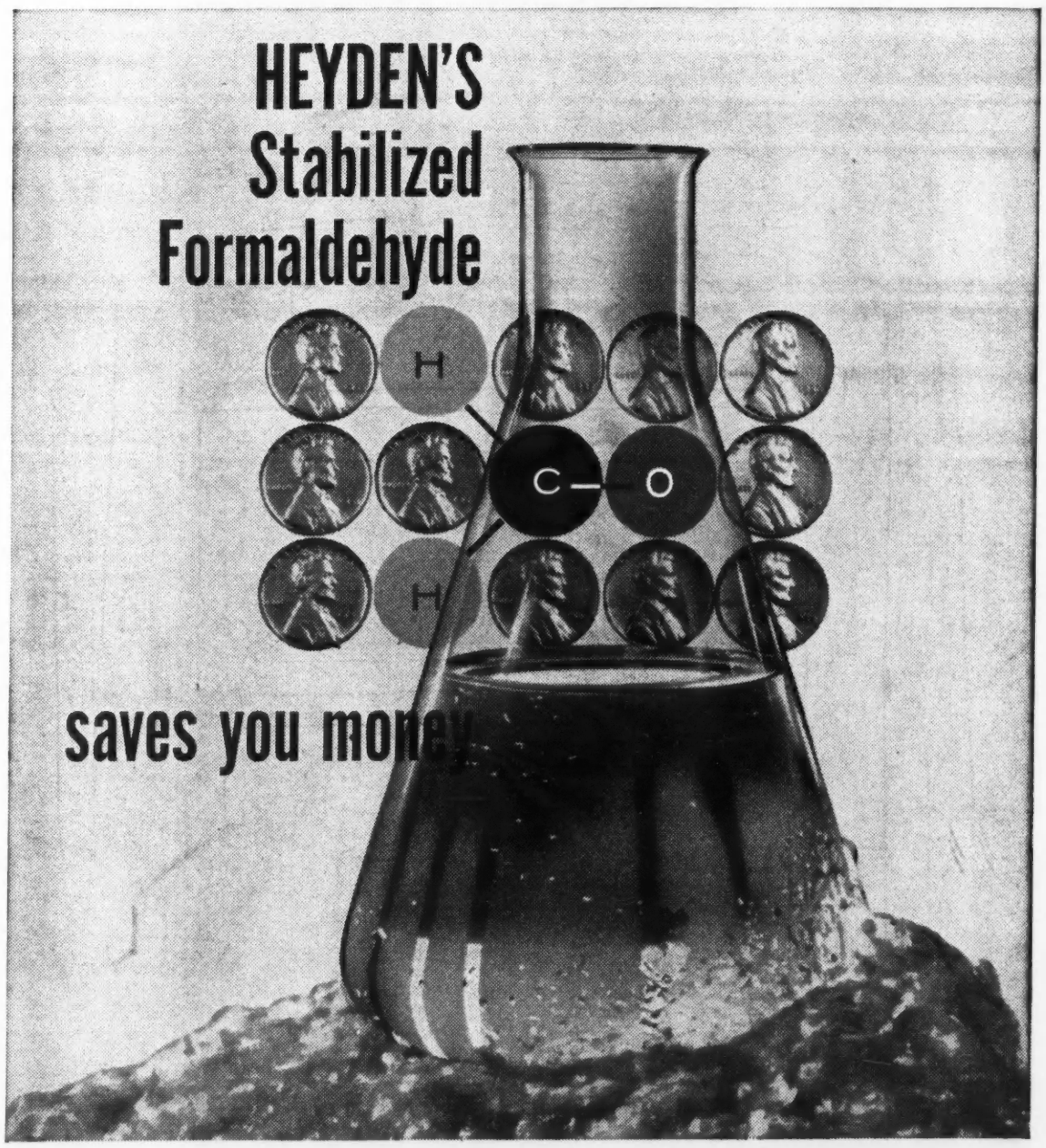
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. .12 • —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 120.00 -122.50
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. ton. 118.50 -121.00
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo lots or more gram. .25 • —
10% feed grade fib. dms., 3 kilos or more kilo. 30.00 -44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0690- —
tanks, dlvd. lb. .0430- —
37% (inhibited, 7% methanol) tanks, dlvd. lb. .0405- —
44% (1% methanol), tanks lb. .0446- —
37%, methanol-free (uninhibited), tanks, dlvd lb. .0375- —
Formic acid, 85% cbys., c.l., works. lb. .1570- —
cbys., t.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., t.c.l. works lb. .1675- .1775
Fringetree bark, bls lb. .65 .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .22¾- —
dms., t.c.l., frt. equald lb. .24¼- —
Fumaric acid in bags ½c. per lb. less.
Furfural, dms., c.l., works lb. .13 • —
dms., t.c.l., works lb. .14 • —
tanks, dvd. E lb. .11½- —
tanks, dlvd. W lb. .12½- —

furfuryl alcohol, cns., works lb. .23 • —
dms., c.l., t.l., Newark, N. J. lb. .19½- —
dms., t.c.l., t.t.l., Newark, N. J. lb. .20½- —
dms., c.l., t.l., Memphis, Tenn. lb. .18 • —
dms., t.c.l., t.t.l., Memphis, Tenn. lb. .19 • —
tanks, dlvd. E. of Denver lb. .175 • —
Fusel oil, refd., dms., c.l., dlvd lb. .18 • —
dms., t.c.l., dlvd. lb. .19½- —
tanks, dlvd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 • —
Gallic acid, NF VII, bbls., 1,000-lb. lots lb. 2.00 • —
bbls., smaller lots lb. 2.02 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 • —
bbls., smaller lots lb. 1.80 2.00
Gamma acid, dry grd., bbls., frt. alld lb. 1.75 • —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.50 • 4.75
Imp., bots. oz. 4.50 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible 75 AOAC test, bbls., c.l., dlvd lb. .53 • —
150 AOAC test, bbls., c.l., dlvd. lb. .64 • —
200 AOAC test, bbls., c.l., dlvd. lb. .70 • —
225 AOAC test, bbls., c.l., dlvd. lb. .74 • —
275 AOAC test, bbls., c.l., dlvd. lb. .82 • —

Gelsemium root, bls. lb. .30 • .35
Gentian root, bls. lb .24 —
Grd., bbls., bxs. lb .30 —
Powd., bbls., bxs. lb .30 —
Geraniol, extra, cns., dms. lb 1.75 2.40
Soap grade, dms lb .90 1.75
Standard, cns., dms. lb 1.65 —
Synthetic, dms lb 1.30 —
Geranium oil, Algerian, cns. lb. 21.00 -24.00
Bourbon, cns. lb. 11.75 -14.00
Turkish (see Palmarosa oil).
Geranyl acetate, cns lb 1.90 2.70
Synthetic, dms lb 1.45 —
Ginger oil, dist., bots. lb. 12.00 -14.00
Ginger oleoresin, NF from African root, bots lb 4.25 5.00
NF, from Jamaican root, bots. lb 7.75 • —
Ginger root, Cochin, bgs. lb. .30 • —
Jamaican, No. 3, bgs lb. .40 • —
Nigerian, split, bgs. lb. .30 • —
Sierra Leone, bgs. lb. .35 • —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works lb. .18½- —
dms., l.c.l., f.o.b. works lb. .19½- .21
tanks, f.o.b. works lb. .15½- —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd lb. .16 • —
131 jellygrams, bgs., c.l., same basis lb. .16½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
191 jellygrams, bgs., c.l., same basis lb. .19½- —
222 jellygrams, bgs., c.l., same basis lb. .21 • —



FOR A CHEMICAL CONVERSION OF PENNIES TO DOLLARS—CHECK THESE FIVE CRITICAL ADVANTAGES

1. *Lower raw material costs possible:* A switch from regular 37% Formaldehyde Solution U.S.P. (6% to 7.5% methanol) to Heyden Stabilized 37% Methanol-Free Formaldehyde saves $90.00 on every 30,000 pound tank truck order with no changes in your bulk-storage facilities required.

2. *Lower storage costs:* Less steam and heating required since Heyden Stabilized Formaldehyde can be stored at much lower temperatures.

3. *Lower control and inventory costs:* Lower storage temperatures result in a much slower acidity build-up; result in a formaldehyde which maintains its uniformity on prolonged storage.

4. *Lower maintenance costs:* Slower acidity build-up prolongs life of storage equipment. Greater stability to precipitation of paraformaldehyde results in less sludge removal from tank bottoms.

5. *Improved end-products:* Since the uniformity of Stabilized Formaldehyde is maintained on prolonged storage, improved end-products can be expected.

Heyden Stabilized Formaldehyde is competitively priced and available now in production quantities. Information covering complete specification data on Heyden Stabilized Formaldehyde is available. Write for your copy now.

HEYDEN CHEMICAL DIVISION
342 MADISON AVE., NEW YORK 17, N. Y.
HEYDEN NEWPORT CHEMICAL CORPORATION

Glue—Hydrogen Cyanide

Glue, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygram, bgs., c.l., same basis lb. .16½- —
135 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —
Bone glue, l.c.l., prices 2c higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs. c.l. dlvd lb. .19 - —
122-149, bgs., c.l., same basis lb. .20½- —
150-177, bgs., c.l., same basis lb. .22½- —
178-206, bgs., c.l. same basis lb. .25 - —
207-236, bgs. c.l. same basis lb. .28 - —
237-266, bgs., c.l., same basis lb. .30½- —
267-293, bgs., c.l., same basis lb. .32½- —
294-330, bgs., c.l., same basis lb. .34½- —
331-362, bgs. c.l., same basis lb. .36½- —
363-394, bgs., c.l., same basis lb. .38 - —
395-427, bgs., c.l., same basis lb. .40 - —
428-460, bgs., c.l., same basis lb. .42 - —
461-494, bgs., c.l., same basis lb. .44 - —
495-529, bgs., c.l., same basis lb. .46 - —
Hide glue, l.c.l. prices 2c higher.
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb. 1.88 - —

l-Glutamine, bots., 1-9 kilo lots, kilo.150.00 -300.00
Bots., 50-kilo lots kilo.100.00 - —
Bots., 500-kilo lots kilo. 75.00 - —
Glycerine, dom., nat., crude, saponification 88%, tanks dlvd. lb. .13 - .13¼
nat., crude, soapiye, 80%, tanks, dlvd. lb. .12 - .12¾
nat., refd., USP, CP, 99%, dms., c.l., dlvd lb. .26⅜- —
dms., l.c.l., dlvd lb. .27⅛- —
tanks, dlvd. lb. .24⅝- —
Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd. lb. .25½- —
dms., l.c.l., dlvd. lb. .26¼- —
tanks, dlvd. lb. .23¾- —
nat., high gravity, dms., c.l., dlvd lb. .26¼- —
dms., l.c.l., dlvd lb. .27 - —
tanks, dlvd. lb. .24⅛- —
Glycerine, dom., refd., syn., 99.5%, dms., c.l., dlvd lb. .26½- —
dms., l.c.l., dlvd lb. .27¼- —
tanks, dlvd. lb. .24¾- —
Imp., nat., crude, soapiye, 80%, c.i.f. lb. .12 - .12¼
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glyceryl guaiacolate, 100-lb. fib. dm., dlvd lb. 4.00 - —
25-lb. fib. dm., dlvd. lb. 4.25 - —
Glycolic acid (see Hydroxyacetic acid).
No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31

Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works lb. .40 - —
dms., l.c.l., same basis lb. .42 - —
tanks, same basis lb. .39 - —
Glyoxal, 30%, dms., c.l., works lb. .20½- —
dms., l.c.l., works lb. .21¼- —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls. lb. 2.90 - 3.00
Gramicidin, 1 to 5 kilos, f.o.b. works, gram. 4.25 - —
Grapefruit oil, dms. lb. 2.40 - 2.60
Graphite, amorp., powd., bgs., fib, dms., ex whse lb. .06 - .09½
Cryst., 88-90%, powd., bgs., fib, dms., ex whse lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24½
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib, dms., ex whse lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd. lb. .07½- .07⅝
Yellow, tanks, dlvd. lb. .05⅛- .05¼
Grease oil, No. 1, dms., c.l., f.o.b. Chicago lb. .12 - —
dms., l.c.l., same basis lb. .14 - —
tankcars, same basis lb. .10½- —
extra, winter, strained, dms., c.l., Chicago lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tankcars, same basis lb. .13½- —
prime, burning, dms., c.l., same basis, Chicago lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tankcars, same basis lb. .15½- —
Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.

GREEN PIGMENTS

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrone, green

Grindelia robusta herb, bls. lb. .40 —
Guaiacol, NF, cryst., dms., tins lb. 2.10 - 2.15
liq., cbys., dms. lb. 2.30 - 2.40
Guaiacwood oil, cns. lb. .65 - .80
Guaiacol carbonate, NF VII, dms lb. 3.40 3.45
Guar gum, edible, bgs., c.l., f.o.b. shipt. pt lb. .38 - —
bgs., l.c.l. same basis lb. .40 - .42
Indust., bgs., c.l., same basis lb. .32 - —
Tech., bgs., c.l., same basis lb. .30 - —

GUMS

Gum quotations are listed individually. For example, prices on Gum, Arabic may be found in the A's under Arabic gum.

H

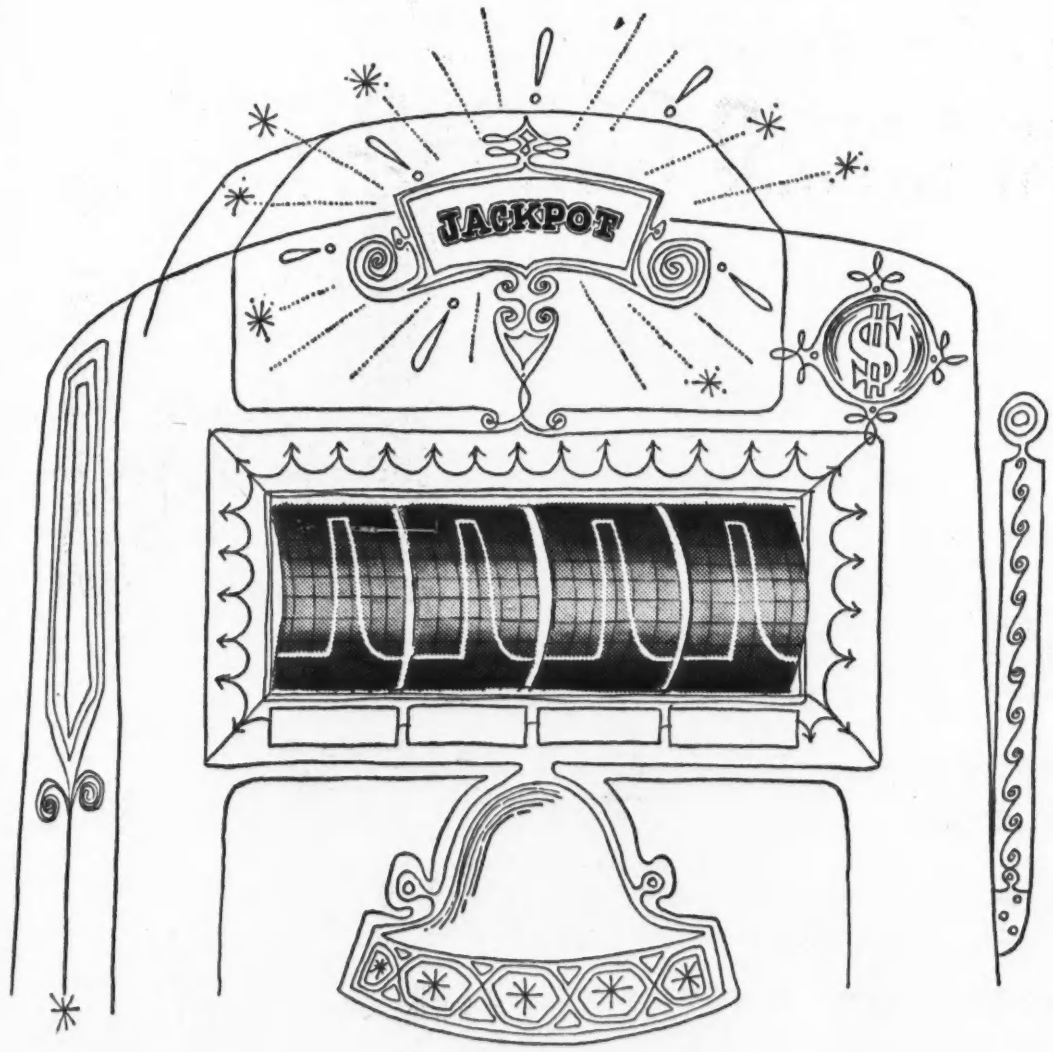
B acid, dry, bbls. c.l., frt. alld., 100% basis lb. 1.00 - —
bbls., l.c.l., same basis lb. 1.05 - —
Hansa yellow 10 G, bbls., dlvd. E. of Rockies lb 2.45 —
Hansa G yellow, pigment, bbls., same basis lb. 2.20 - —
Hawthorn berries, bgs. lb. .18 - .20
Heliotropin 100-lb lots, dms. lb. 2.60 3.40
Hellebore root dom., green, bls lb. 70 .75
Helonias root bls. lb. 1.50 - —
Hemlock oil, cns. lb. 2.55 3.00
Henbane leaves, bls lb. .40 - .45
Heptachlor dms. c.l., t.l., frt. alld., 100% basis lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 —
Houston, Texas gal. .1625- —
Hesperidin, purif., 50 kilos, f.o.b. works kilo.19.70 - —
Hesperidin methylchalcone, 50 kilos, f.o.b. works kilo.49.25 - —
Hexachlorophene, dms., 1,100 lbs. or more lb. 1.84 - —
dms., to 1,100 lbs. lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb lots or more, Perth Amboy or New York City lb. .233 - —
bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs., smaller lots, same basis lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib dms., smaller lots, same basis lb. .253 - —
USP, bgs, 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .48¼
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston, Texas gal. .16 - —
l-Hexanol, dms., c.l., works lb. .35 - —
dms., l.c.l., works lb. .35¾- —
tanks, works lb. .33 - —
Hexyl cinnamic aldehyde, dms lb. 3.95 - 4.00
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms., l.c.l., works lb. .76 - —
Hexyl salicylate, dms. lb. 1.70 - 1.75
Hexylene glycol, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd lb. .19 - —
tanks, dlvd lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd lb.14.00 - —
dms., smaller lots, dlvd lb.14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.25 - —
methylbromide, USP, bots oz. 3.00 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton 6.75 - —
Horehound herb, bls. lb. .18 - .20
Hydrastis (see Goldenseal.)
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works lb. 1.28 - —
240-lb. dms., l.c.l., works lb. 1.35 - 1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb. 2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd, zone 1 lb. .29¼- —
dms., l.c.l., dlvd, zone 1 lb. .29¾- .30¼
tanks, dlvd, zone 1 lb. .27¼- —

Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.

Hydrobromic acid, medicinal, 48%, cbys., frt. equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride.)
Hydrochloric acid, CP, USP, consumers, cbys, extra, c.l., works lb. .15¾- —
cbys, l.c.l., same basis lb. .17¼- .17¾
5-pint bots., extra cs, c.l., same basis lb. .20¾- —
Hydrochloride acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys., l.c.l., dlvd, Metropolitan area 100 lbs. 2.90 - 3.00
tanks, works, frt. equald ton.28.00 - —
20°, cbys., c.l., works 100 lbs. 2.75 - —
cbys., l.c.l., dlvd, Metropolitan area 100 lbs. 3.15 - —
20°, tanks, works, frt. equald ton.30.00 - —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., l.c.l., dlvd, Metropolitan area 100 lbs. 3.65 - —
tanks, works, frt. equald ton.35.00 - —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. .85 - .90
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.00 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pint bots., f.o.b. works, pint. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd 100 lbs.17.25 - —
55-gal. dms., l.c.l., t.t.l., dlvd 100 lbs.18.75 - —
20-gal. dms., c.l., t.l., dlvd 100 lbs.19.00 - —
20-gal., dms., l.c.l., t.t.l., dlvd. 100 lbs.20.50 - —
tanks, works frt. equald 100 lbs.11.50 - —

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.75 per cwt. for drum delivery

Hydrofluosilicic acid, dms., works, 30% basis lb. .07 —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride anhyd., 50-lb. cyls, l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 98% tanks, works lb. .13 - —



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Celanese CHEMICALS

Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .29 - .31
cyls., dlvd. W lb. .37 - —
tanks, works lb. .16 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. lb. .82½- —
dms., l.c.l. dlvd lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l. dlvd lb 2.59 - —
dms., t.t.l., dlvd lb 2.61 - —
Hydroxyacetic acid, tech., 70% dms. Philadelphia and Chicago lb. .11 - —
tanks Belle W Va lb. .073 —
Hydroxycitronellal, cns. lb. 5.25 - 5.65
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .69 - —
fib dms. 4,000 to 19,999-lb lots, same basis lb. .77 - —
Hydroxyethyl cellulose, fib., dms., 100 to 1,999-lb. lots, basis lb. .81 - —
fib. dms., smaller lots, same lb. 1.01 - —
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots. oz 7.75 8.50
Hyoscyamine sulfate, bots oz 7.75 8.50
Hypophosphorous acid, purif., 50%, 10-chys. f.o.b works lb 1.95 - —
NF 50% 10-chys. same basis lb 1.35 - —

I

Ichthammol, NF, dms lb. .75 - 1.05
Indigo (see Dyes, Coaltar, 1171 indigo, syn.).
Indole, CP, bots lb. 13.65 -15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more dlvd lb. 4.50 - —
50-lb. dms., less than 1,000 lb., dlvd lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd. lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. lb. 1.10 - —
Resub., USP, dms., f.o.b. works lb. 2.20 - 2.22
Iodochlorohydroquinolin, USP dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., fo.b. works lb. 4.90 - —
dms., 100-lb., same basis lb. 5.05 - —
a-Ionone, cns. lb. 4.60 - 5.75
b-Ionone, cns. lb. 4.15 - 6.15
Ipecac root, whole, bgs. lb. 7.75 - 8.00
Powd., bbls., bxs. lb. 9.00 - 9.25
Irish moss, bleached, prime, bls lb. .35 - —
Iron blue, alkali resistant, bbls., c.l., dlvd. E lb. .60 - —
bbls. l.c.l. ton lots same basis. lb. .61 - —
bbls., smaller lots, same basis. lb. .62 - —
Dom., reg. bbls., c.l., same basis. lb. .55 - —
bbls., l.c.l., ton lots, same basis. lb. .56 - —
bbls., l.c.l., smaller lots same basis lb. .57 —
Iron blue dlvd. prices 1c higher for Pacific Coast states: Wash., Ore., Cal., N M., Ariz., Mont. Wyo. Utah. Col and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs., l.c.l., works lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works lb. .15¾- —
bgs., l.c.l., works lb. .16 - —
Iron oxide, metallic, brown, l.c.l., bgs., works lb. .05¾- —
Iron oxide Persian Gulf, red., bgs., l.c.l., works lb. .09½- —
Iron oxide, red, dom., pure, bgs., c.l., Bethlehem, E. St. Louis, New York City lb. .14¼- —
bgs., l.c.l., same basis lb. .14½- —
Iron oxide yellow nat., French type, bgs., l.c.l., works lb. .07 - —
Peruvian type, bgs., l.c.l. lb. .025 - —
Iron oxide, yellow, pure, light lemon shade bgs., c.l., works lb. .12½- —
bgs., l.c.l., same basis lb. .12¾- —
Other shades, bgs., c.l., same basis lb. .12 - —
bgs., l.c.l., same basis lb. .12¼- —
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
Isoamyl alcohol, dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 —
Isoborneol cns lb. 1.44 - 1.80
Isobornyl acetate cns lb. .46 - .56
Isobornyl formate, dms lb. 1.15 - 1.20
Isobornyl propionate, dms lb. 1.20 - 1.25
Isobutyl acetate, perfume grade, cns lb. .30 - .35
solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —
Isobutylene, 99% tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, tech., dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Isobutyric acid, dms., c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., t.t.l., same basis lb. .36½- —
t.c t.t., same basis lb. .33 - —
Isobutyronitrile, d.ms., c.l., dlvd. lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd. lb. .45 - —
Isoeugenol, cns. lb. 3.10 - 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 - —
Isonicotinic acid, 100-lb fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .20½- —
dms., l.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18 - —
Iso-octyl isodecyl phthalate, dms., c.l., frt. alld. E lb. .25½- —
dms., l.c.l., same basis lb. .27 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .23½- —
tanktrucks, 2,000 gals., same basis lb. .23 - —
Isopentane, comi. grade, tanks, f.o.b. Tex. refy gal. .16½- —
Isophorone, dms., c.l., dlvd. lb. .25 - —
dms., l.c.l., dlvd. lb. .26½- —
tanks, dlvd lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .14½- —
dms., l.c.l., same basis lb. .15½- —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., l.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —

Isopropyl alcohol, 95%, c.l., dms., dlvd gal. .90 - —
dms., l.c.l., dlvd. gal. .70 - —
tanks, dlvd. gal. .44 - —
Anhyd., c.l., dlvd gal. .62 - —
dms., l.c.l., dlvd. gal. .72 - —
tanks, dlvd. gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd. lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works lb. 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib dms. c.l., t.l., works lb. .75 - —
450-lb. fib dms., l.c.l., works lb. .80 .90
Isoquinoline, dms., works lb. .65 1.25
Itaconic acid, retd. bgs. c.l., t.l. works lb. .39½- —
bgs., l.c.l., same basis lb. .41 - .43
Tech., bgs., c.l., same basis lb. .34½- —
bgs., 500-lbs. same basis lb. .36 - —

J

J acid, paste, bbls., works, 100% basis lb 2.70 - —
Powd., bbls., same basis lb. 2.75 - —
Jalap root, NF, bls lb. .55 - .60
NF, powd., bbls., bxs lb .65 - .70
Japan wax, cs. lb. .29 - .31
Juniper berries, bgs lb. .25 - .30
Juniper berry oil NF, bots. lb. 2.90 3.75
Twice rectified, bots lb. 3.25 —
Juniper tar oil NF dms lb. .42 - .60
Juniper wood oil, tech., cns. lb. .38 - .55

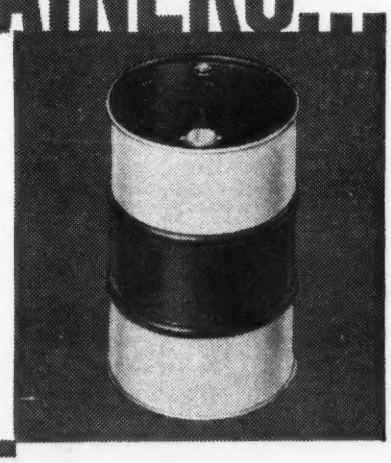
K

Kaolin (see also Clay, China).
Kaolin NF, powd., fib. dms. lb. .10 - .12
NF, colloidal, 50-lb. bgs. lb. .15½- .17½
Karaya gum, No. 1, NF, powd., bls lb. .48 - .50
No. 2, powd., bbls. lb. .43 - .45
No. 3, powd., bbls. lb. .37 - .40
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .11 - .13

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston, Texas gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 - —
Lactic acid, food processing, 50%, dms., c.l., t.l., dlvd. N.Y., Phila. lb. .1986- —
dms. 20 or more, same basis. lb. .2036- —
dms., 5 to 19, same basis lb. .2086- —
Lactic acid, food processing, 50%, dms., 1 to 4, same basis lb. .2136- —
80%, c.l., dms., same basis lb. .3336- —
dms., 20 or more, same basis. lb. .3386- —
dms., 5 to 19, same basis lb. .3436- —
dms., 1 to 4, same basis lb. .3486- —
Plastic grade, 50%, c.l., bbls., works lb. 27.40- —
bbls., 20 or more, works lb 2790 —
bbls. 5 to 19 works lb 2840 —
bbls., 1 to 4, works lb. .2890- —
80% bbls., c.l., works lb. .4625- —
bbls. 5 to 19 works lb 4725 —
bbls. 1 to 4, works lb 4775 —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 - —
bbls., l.c.l., works 100 lbs 12 85 —
USP, 85% chys lb 85 —
Lactose, crystalline, edible, bgs., 23,000-lb lots, frt equald lb .14 —
bgs., 6,000-lb lots, frt equald lb 14½ —
bgs., 2,000-lb lots frt equald lb 14¾ —
bgs., 200-lb lots, frt equald lb 15¼ —
Edible lactose in fib dms ½c higher
Lactose, ferment, grade, bgs., c.l., works lb. .08¾- —
USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb .21½- —
fib. dms., 2,000-lb lots frt. equald lb 22¼ —
200-1,880-lb. lots, frt. equald lb 22¾ —
USP lactose in bags ½c to 1c lower.

WHEN YOU SHIP IN LINED CONTAINERS...



GET COMPLETE PROTECTION WITH TRI-SURE® COATED DRUM FITTINGS

If your product requires complete shielding from contact with metal, a lined container *plus* a coated fitting is the only *perfect* protection you have. Here's where Tri-Sure fits the bill. Tri-Sure flanges and plugs are factory-coated *before* installation to rigid quality specifications. The fitting is coated even *under* the gasket. Metal *never* touches the drum contents. Tri-Sure's continuous research has already come up with every needed type of lacquer and plastic coating — and we're adding more every day. This means you get the *correct* coating for your product and drum lining — plus Tri-Sure's world-famous protection against leakage, contamination, tampering and substitution. Insist on Tri-Sure fittings when next you order lined containers.

Tri-Sure®
CLOSURES

AMERICAN FLANGE & MANUFACTURING CO., INC. • 30 Rockefeller Plaza, New York 20, New York

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Lactose, USP spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs. t.t.l. frt equald lb .19 .19¾
Lady's slipper root, bls. lb. 3.50 - —
Lamp black, bgs. c.l. works lb. .16 - .45
Lanolin, USP anhyd. 400-lb dms., works lb. .24 - .28
USP, anhyd., cosmetic, 400-lb. dms., works lb. 26 - .30
USP hydrous 400-lb dms., works. lb. .20 —
Lard, cash, dms., Chicago lb. .08⅛- —
Lard oil (see Grease oil).
Larkspur seed bgs lb .55 - —
Laurel leaf oil dms cns. lb 9 75 - 12 50
Laurent's acid, bbls lb. .87 - —
Lauric acid, pure, dms lb. .30¼- .32¾
bags lb. .28¾- .31¼
tanks lb. .27¾- —
Lauryl alcohol bots lb 2.00 2.50
β-Lauryl methacrylate, dms., c.l., t.l. works lb .65½- —
dms. c.l. works lb 66 —
Lavandin oil 22 24% dms. lb 1.15 - —
Abrial, dms lb 1.20 - —
Lavender flowers, medium, bls lb .55 .60
Ord bls lb .20 .25
Select, bls lb .90 1.00
Lavender flower oil USP, French, 25-37% ester, cns lb 2.25 - 4.00
40-42% ester, cns. lb 3.50 3.65
Spike, Spanish, cns lb 1 75 2.00
Lead acetate, NF, cryst., dms lb. .37½- —
White cryst. obls. lb 25½ —
gran. bbls lb. 26½ —
powd bbls lb. .26¼ —
Lead arsenate acid powder, dealers, 3-50 lb bgs or any quantity frt alld on $150 or more lb 30½ —
t-lb bgs same basis lb 47 —
Lead blue basic sulfate, bbls., c.l., shipt. point, frt. alld. lb. .15½- —
bbls., l.c.l., same basis lb. .16½- —
Lead carbonate (see Lead, white, basic carbonate)
Lead chloride 400-lb fib. dms lb. .56 - —
Lead iodide NF V ials lb 5.82 - —
Lead linoleate, fused, 24% liq. Pb, dms lb. .21¼- —
Lead metal prime, pigs, New York lb. .1025- —
St. Louis lb. .1005- —
Lead monosilicate bgs., c.l., works, lb. .1240- —
bgs., l.c.l., same basis lb. .1340- —
Lead naphthenate liq. 16% Pb., dms dlvd lb. .19½ —
24% Pb dms dlvd lb. .24¼ —
Solid 67% Pb dms dlvd lb 31¾ —
Lead nitrate, tech. cryst., 400-lb. fib dms lb. .2675- —
Lead orthosilicate gel 50-60% PbO, dms works lb. 29¾ 34¼
Lead phthalate dibasic dms works. lb 41 —
Lead, red 95% Pb_3O_4, or less, bbls., cl, works lb. .13 - —
bbls., l.c.l., same basis lb. .14 - —
97% Pb_3O_4 or less, bbls., same bbls., l.c.l., same basis lb. .1320- —
basis lb. .1420- —
98% Pb_3O_4, bls., c.l., same basis lb. .1335- —
bbls., l.c.l., same basis lb. .1435- —
Lead resinate, precip., 23%Pb, dms., lb 49 —
Lead salicylate normal dms. works lb 48 —
Lead silicate (see Lead, white, basic silicate).
Lead silicochromate, bgs., c.l., works lb. .19 - —
bgs., l.c.l., same basis lb. .20 - —
Lead sulfate (see Lead, blue, basic sulfate and Lead, white, basic sulfate).
Lead sulfate tech 16% Pb dms lb. 17¼ —
24% Pb. dms lb. .21¼- —
Solid 30% Pb dms lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l., frt. alld. lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
Basic silicate, bgs., c.l., same basis lb. .15½- —
bgs., l.c.l., same basis lb. .16½- —
Basic sulfate, bgs., c.l., same basis lb. .15½- —
bgs., l.c.l., same basis lb. .16½- —
Lecithin edible tech. bleached, non-ret dms., c.l. works. lb. .14 .15
non-ret dms., t.c.l. same basis lb. .15 .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret dms., t.c.l., same basis lb 14 .15
Lemon bioflavonoid complex 50 kilos, f.o.b works kilo 14 20 —
Lemon oil USP Calif. cns. dms lb 2.45 3.75
Messina, cns lb 4.00 6.50
Lemongrass oil, cns., dms lb 4.00 - —
dl-Leucine dms. 1 kilo. works kilo 50.00 - —
Licorice root, gran bls lb 13 —
Powd bls lb 15 .16
Whole bls lb .09 10
Lignaloe wood oil, Mexican, cns lb 2.75 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb 1,500.00
Lime, chemical (quicklime), bulk, c.l. 50,000 lbs works E ton 14 25 —
Chemical hydrated, bgs., c.l. same basis ton 17 25 —
spray bgs. c.l. same basis ton 18 25 —
For New York delivery add $6 29 freight charge
Lime oil, dist., Mexican dms. lb 5.25 6.00
West Indian dms. lb. 5.25 6.00
Expressed West Indian, dms lb 6.50 7.75
Lime salts (see Calcium)
Lime-ammonium nitrogen, 20 5% N (see Ammonium nitrate with dolomite).
Linalool ex bois de rose oil dms lb 2.45 4.25
Syn., 98-100% dms works lb 3.20 —
Linalyl acetate ex bois de rose 90 92% dms lb 2.65 4.50
96-98% dms lb 3.25 —
Syn. 98-100%, dms., works lb 3.20 —
Lindane 25% formulation to distributors dms. frt alld lb 1.35 1.50
99% tech. to formulators, 250-lb dms 5,000 lbs dlvd lb 2.13 - —
100-lb dms. 5,000-lbs dlvd lb 2 15 - —
250-lb dms less than 5,000-lbs dlvd lb 2.18 —
100-lb dms less than 5,000-lbs dlvd lb 2.20 —
Linden flowers, with leaves bls lb .35 .40
Without leaves bls lb .42 .45
Linseed meal, expeller, 32%, bulk, Minneapolis, mills ton 63.50 - —
Extracted, 34%, bulk same basis ton 63.50 - —
Linseed oil, raw, dms., c.l., New York lb. .1880- —
dms. New York, l.c.l., lb. .2080- —
tanks, f.o.b. Minneapolis lb. .1520- —
tanks, New York lb. .1628- —
tankwagon, New York lb. .1653- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, dist., dms. lb. .22½- .25
tanks lb. .20 - —
water-white, dms. lb. .27¼- .29¾
tanks lb. .24¾- —
Litharge, coml., powd., bbls., c.l., works lb. .12½- —
bbls., l.c.l., same basis lb. .13½- —
Lithium aluminum, hydride, lump, dms., works lb 33.00 - 39.00
Lithium benzoate dms lb 1 65 1.67
Lithium bromide, NF, gran., bgs., works, frt equald lb 2.60 - —
Lithium carbonate, NF, dms., ton lots lb. .58 - —
dms., 1,999 lbs. or less lb. .64 - —
Tech., dms. ton lots lb. .57 - —
dms., 1,999 lbs. or less lb. .63 - —
Lithium chloride CP anhyd., dms., ton lots lb. 1.23½- —
Tech. anhyd dms., c.l. t.l., dlvd, or works frt alld lb. .87 —
dms. l.c.l. same basis lb .88 .92
Lithium citrate NF dms. ton lots, lb 1.50 - —
Lithium fluoride dms., 20,000-lb. lots, dlvd lb. 1.75 - —
bbls., ton lots and more, dlvd lb. 1.85 - —
bbls., less ton lots, dlvd lb. 1.90 - —
Lithium hydride, powd. dms., 500-lbs lots or more works. lb 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .54 - —
dms., l.c.l., frt. alld. lb. .58 - —
Lithium manganite dms works lb. 95 1.05
Lithium nitrate tech dms., 100-lb lots lb 1.15 1.25
Lithium salicylate dms lb 1.60 1.70
Lithium silicate dms. works lb. 1.10 1.20
Lithium stearate dms. c.l. works. lb. 47½- —
dms. ton lots works lb. 48½- —
dms. less-ton lots works lb. 53½- —
Lithium sulfate dms. 100-lb. lots. lb 1.15 1.25
Lithium titanate dms., works lb 1.15 1.25
Lithol red toner, barium, bbls., works lb 1.03 - —
Lithol red toner, pure, bbls., works. lb. 1.65 - —
Resinated, bbls. works lb 1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E. lb. .08⅜- —
bgs. t.c.l. dlvd E lb. .09⅛- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 —
bgs. t.c.l. dlvd lb. 12 —
Lobelia herb, bls lb. .80 - —
Lobeline sulfate bots. 50-oz lots, works oz 30.00 —
Locust bean gum powd. bgs lb .35 .45
Lycopodium, cs. lb. 2.50 - 3.00
l-Lysine monohydrochloride, 25-lb. dms lb. 4.50 - —

M

Mace, Siauw, No. 1, bls lb. 1.25 - —
No. 2, whole, bls lb. 1.15 - —
siftings, bls. lb. 1.10 - —
Mace oil, dist. cns. dms. lb. 8.00 - 10.00
Magnesia calcined tech bgs., cts., frt equald lb. .25¾ 26½
Tech. syn. rubber grade light, bgs., c.l. frt equald lb .28¾ .30
Magnesia, calcined, tech., syn., rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs. t.c.l. frt equald lb 28¾ - —
Above prices are quoted f.o.b. works freight equald., with Metropolitan New York and competitive producing points
Magnesia calcined, tech., heavy, 85% bgs. c.l. f.o.b Lunning, Nev ton 39.50 - —
91% bgs. c.l., same basis ton 49 50 - —
95% bgs. c.l. same basis ton 59 00 - —
USP light, bgs. lb. .36½- .37½
USP heavy bgs lb. .36½- .37½
Magnesite chemical grade, calcined, powd., bgs. c.l., works, frt equald ton 86.25 - —
Deadburnt, standard grain, bulk, c.l., Chewelah, Wash. ton 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b works lb. 1.15 - —
Magnesium carbonate, tech bgs., c.l., frt equald lb. .11 - —
bgs., t.l., frt equald lb. .11½- —
bgs. t.c.l. frt equald lb. .13½- .14
USP, bgs., c.l., frt. equald lb. .13½- —
bgs. t.l., frt equald lb .14 —
bgs. t.c.l. frt equald lb .15 16
Above prices are quoted f.o.b. works, freight equald. with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l. works lb. .12¾- —
dms. t.c.l., works lb. 14 .15
hydrous, 99% flake, bgs., c.l., works ton 60.00 —
bgs. t.c.l., works ton 75 00 - 100 00
Magnesium gluconate 100-lb dm f.o.b works E lb 1.42 —
Magnesium hydroxide, NF powd., dms., 500-lbs or more, f.o.b works lb. .24½- 25½
Magnesium lauryl sulfate dms., c.l., frt alld lb. .22½- —
dms., t.l.l., frt alld lb. .23½- —
tanks, frt alld lb. 21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb lots or more, works lb .36 —
pigs., 10,000-lb lots or more, works lb. .35¼- —
sticks, cs. works, same basis lb. .59 - —
Magnesium nitrate cryst., dms., works lb 29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc)
Magnesium silicofluoride works lb 10½- .13
Magnesium sulfate, tech., bgs., c.l., works 100 lbs 2.15 —
bgs. t.c.l., works 100 lbs 2 90 3.15
USP, cryst., bgs., c.l., works. 100 lbs. 2.35 - —
bgs. t.c.l. 5,000 lbs., 1 withdrawal 100 lbs 3.10 - —
bgs. smaller lots 100 lbs 3.35 - —
Magnesium trisilicate, USP, powd., fib. dms., 5,000-lb. lots lb. .38 - —
fib dms. 1,000-lb lots lb. 40 - —
fib dms. 100-lb lots lb. 45 - —
USP, micronized powd., dms., 500-lb. lots lb. .80 - —
Malachite green, straight, FTA, bbls., works lb 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald lb. .23 - —
dms., l.c.l., frt. equald lb. .24½- —
tanks, frt. equald lb. .21½- —
Maleic anhydride in bags ¼c. per lb. less.
Malic acid, tech., cms lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots lb. 2.40 - 2.50
Mandrake root, bls. lb. .42 - .44
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton. 148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton. 144.50 - —
40,000 to 99,999-lb lots, dms. same basis ton. 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb lots, $3 per ton higher
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF dms. lb. 3.52 - —
Manganese linoleate, liq. 6% Mn, dms lb. .26½- —
Solid, precip. 8.2% Mn bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd, E lb. .34½- —
dms., ton lots, dlvd E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt alld lb. .29¾- —
Manganese resinate fused, 3½% Mn dms lb. .29¼- —
Precip. 6½ 7% Mn, dms. lb. .42 - —
Manganese sulfate fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd, S. E. ton. 95.00 - —
bgs., l.c.l., dlvd, S. E ton. 102.00 - —
75% $MnSO_4$, 30-tons, same basis 85.00- —
Manganese tallate 6% dms lb. .26½- —
Mannitol, com'l fib dms ton lots, works lb. .60 - —
fib dms. to ton lots, works lb. .62 - —
fib dms. single dm., works lb. .65 - —
Marine pitch dms lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide)
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs. c.l., works lb. .26½- —
bgs. l.c.l. works lb. .28 - —
Menadione USP bots gram. .044 - 05
Menhaden oil, crude tanks, works, Atl. & Gulf ports lb. .05½- —
Menthol, nat USP Brazilian large crystals, cs lb. 6.75 - 7.00
Nat. USP Brazilian, regular crystals, cs lb. 6.65 - 6.90
Japanese cs. lb. 10.25 - 10.50
Syn., USP racemic, 25-lb lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms. ton lots, works, frt. alld lb. .44 - —
bgs. fib dms. less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms. ton lots, works, frt. alld lb. .54 - —
bgs. fib dms. less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst. dms., 100 lbs. f.o.b works lb. 4.03 - —
USP gran. or powd., 50-lb. dm., 100 lbs. f.o.b works lb. 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb. 5.84 - —
Mercuric iodide, red, NF 100-lb. dm. f.o.b works lb. 6.97 - —
Mercuric oxide red NF IX 50-lb. dm. 100 lbs. f.o.b works, lb. 4.72 - —
tech. 50-lb dm. 100 lbs., same basis lb. 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 4.89 - —
tech., dms., 100 lbs. lb. 4.35 - —
25-lb. fib. dm. lb. 4.38 - —
Mercurous chloride (see Calomel)
Mercury, ammoniated (see White precipitate, USP XV)
Mercury metal 76 lbs. per flask, net flask. 168.00 - 190.00
Mesityl oxide dms., c.l., dlvd lb. .15 —
dms., l.c.l., dlvd lb. .16½- —
tanks, dlvd lb. .12¼- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline)
Metanilic acid, dms., works lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine)
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid, glacial 98%, dms., truckloads frt equald lb. .42½- —
dms. smaller lots, frt equald. lb. .43 - .75
tanks works frt equald lb. .40 - —
Methanol, nat. denaturing grade, tanks frt alld gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min. dlvd gal. .51½- —
dms. t.c.l. dlvd gal. .61½- —
Syn., tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .35 - —
tankwagon, 4,000 gal min., dlvd gal. .30 - —
tankwagon, 4,000 gal min., f.o.b terminal gal. .29 - —
Syn., zone 2, dms., c.l., t.l., min., frt. alld. or dlvd. gal. .55½- —
dms. t.c.l., works gal. .65½- —
Methanol, syn, Zone 2, tankwagon, 2,000-4,000 gal. lots, min., dlvd, Metropolitan area gal. .39 - —
tanks, 4,000 gal min., dlvd, gal. .34 - —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz. Calif. Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b works, frt. equald lb. 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine, hydroxyanalogue, (calcium salt) 90% min., dms. t.l. frt alld. lb 1.10 - —
dms., t.t.l., same basis lb. 1.16 - —
dl-Methionine, fib dms., frt. alld., 50-lb or more lb. 3.50 - —
Feed grade 98% fib dms., same basis lb. 1.43 - —
Methoxychlor 50% wettable powder, dealers dms. cs lb. .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 lb. .21½- —
non-ret. dms., t.c.l., same basis lb. .23 - .32½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd zone 1 lb. .33¼- —
non-ret. dms., t.c.l., same basis. lb. .34 - .34½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat. dms., t.c.l., E. of Miss. frt alld gal. .62½- —
Syn., dms., c.l., frt. alld. E. gal. .60½- —
dms., l.c.l., frt. alld. E .... gal. 70½- —
tanks, frt. alld. E. gal. .44½- —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .35¼- —
dms., t.t.l., dlvd lb. .36¼- —
tanks, dlvd. lb. .32¼- —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., t.c.l., dlvd. E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., t.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methyl amyl ketone, dms., c.l., t.l., f.o.b works lb. 1.99¼- —
dms., t.c.l., same basis lb. 2.00 - —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. lb. 2.20 - 2.70
Methyl benzoate, cns., dms. lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt alld lb. .62 - .72
on 100 lbs lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb bgs., c.l., works lb. .82 - —
50-lb bgs., 2,000-lb lots and more, same basis lb. .89 - —
50-lb bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Methyl cellulose, standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb bgs. 2,000-lb lots and more, same basis lb. .76 - —
50-lb bgs., smaller lots, frt. alld. lb. —
Methyl chloride, indust. cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Methyl chloride, refrigerator mfgs., cyls., dlvd lb. .48¾- —
Other consumers or service men, cyls., dlvd lb. .67¾ —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns. lb. 2.05 - 2.20
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd lb. .16½- —
tanks, dlvd. lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 —
dms., t.c.l., works lb. .45¾- —
tanks, works lb. 43 - —
Methyl formate, refd., dms lb. .35 .40
Tech. non-ret. dms., any quantity works lb. .10 - —
tanks, works lb. .07 - —
α-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .26 - —
100-lb. multiwall paper bgs., t.l., min 23,000 lbs. works. lb. .27 - —
100-lb multiwall paper bgs., t.t.l., works lb 28 - —
Methyl heptin carbonate, bots lb. 27.25 - 29.00
Methyl p-hydroxybenzoate 6lb dms lb 1.90 2.00
Methyl ionone, standard, cns. dms. lb. 3.40 3.85
Methyl isoamyl ketone, dms., c.l., dlvd lb. .20 - —
dms., t.c.l., dlvd. lb. .20½- —
tanks, dlvd lb. .17½- —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., t.c.l., dlvd lb. .18½- —
tanks, dlvd lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald. with Belle, W. Va lb. .31 - —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate)
Methyl parathion, tech., 80%, dms., frt. alld E lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West
Methyl roseaniline chloride, NF., 5-lb fib dms lb 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼- —
dms., t.c.l., same basis lb. .62½- 67¼
Methyl testosterone, USP, 100-gram, hots gram No Prices.
2-Methyl-5-vinyl pyridine, 40-dm lots or more, f.o.b works lb 1 32 - —
5-39 dm lots, same basis lb 1.37 - —
tanks, same basis lb 1 27 - —
Methyl violet toner, molybdated, PMA bbls., dlvd E of Rockies lb 2.95 - —
Tungstated, PTMA, bbls, same basis lb 4.35 - —
Methyl violet prices 1c higher W. of Rockies
Methylene blue, NF, crystals, 100-lbs., frt equald lb. 4.10 - —
Methylene chloride, tech., straight or assorted dms. c.l. or t.l., dlvd lb. .12½- —
dms. t.c.l. t.l. dlvd lb. .15¾- —
tanks, 4,000-gal. min. dlvd lb. .11¼- —
h-Methylnaphthalene (2-C... m.p., dms. works lb 90 —
Methylpentanediol (see Hexylene glycol)
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5)
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs. c.l., works lb. .04 - —
roofing, 20 to 80 mesh works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½- —
bgs. t.c.l., ex-whse lb. .07¼- —
paint or facg., bgs., c.l., 325 mesh works, frt alld E. lb. .08¼- —
bgs. t.c.l. ex-whse or freight alld. E lb. .09 - —
wet-grd., rubber, bgs., c.l., works, frt. alld. E lb. .08 - —
bgs., t.c.l., ex-whse or frt. alld E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾- —
bgs., ex-whse or frt alld E. lb. .09 —
Mica, white, 5-10 microns, bgs., c.l., works, frt alld E lb. .08¼- —
Mica wet-grd W of Miss ½c. higher; W. of Rockies 1c higher.

Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .70 - —
non-ret. dms., l.c.l., same basis gal. .75 - —
tankcars, refy. gal. .54 - —
65-75 vis., non-ret. dms., c.l., same basis gal. .70½- —
non-ret. dms., l.c.l., same basis gal. .75½- —
tankcars, refy. gal. .54½- —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .71 - —
non-ret. dms., l.c.l., same basis gal. .76 - —
tankcars, refy. gal. .55 - —
135-138 vis., non-ret. dms., c.l., same basis gal. .77 - —
non-ret. dms., l.c.l., same basis gal. .82 - —
tankcars, refy. gal. .61 - —
Mineral oil, white, NF, 145-155 vis., non-ret. dms., c.l., same basis gal. .83 - —
non-ret. dms., l.c.l., same basis gal. .88 - —
tankcars, refy. gal. .67 - —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .85 - —
non-ret. dms., l.c.l., same basis. gal. .90 - —
tankcars, same basis gal. .69 - —
200-210 vis., non-ret. dms. c.l., f.o.b. refy gal. .875 - .90
non-ret. dms., l.c.l., same basis gal. .925 - —
tankcars, refy. gal. .69 - .715
340-350 vis., non-ret dms., c.l., f.o.b. refy gal. .92½- —
non-ret. dms., l.c.l. gal. .97½- —
tankcars, refy. gal. .76½- —
(For dlvd. N.F. prices add 2c. for c.l. and 3c. for l.c.l.).
Mineral orange, American, bbls., c.l., works lb. .15¼- —
bbls., l.c.l., same basis lb. .16¼- —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York gal. .305 - —
Houston, Texas gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
140 F. flash, New York, New Jersey at terminal gal. .205 - —
Houston, Texas gal. .17 - —
Mink oil, dms. lb. 1.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .12 - .12½
tanks, New York gal. .15½- .16
Molybdated orange, bbls. lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo 7.84 - —
325 mesh, ctns., works kilo 9.13 - —
Molybdenum trioxide, purit., dms., works lb. 1.25 - —
Tech., chemical, dms., works, basis Mo content lb. 1.61 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.60 - —
Molybdic acid, 84% dms., works. lb. 1.15 - 1.25
Monoallylamine, dms., c.l., dlvd lb. .965 - —
dms., c.l., dlvd. lb. .995 - —
tanks, dlvd lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10¼- —
dms., l.c.l., same basis lb. .11½- —
tanks, same basis lb. .08¾- —
Monochlorobenzene prices in the West 1¾c. higher.
Monoethanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoethylalphanaphthylamine (see n-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
dms., l.c.l., dlvd. E., 100% basis lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine)
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½- —
dms., l.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald. 100% basis lb. .36 - —
30-35% soln., dms., l.c.l. frt. equald, 100% basis lb. .36½- —
tanks, frt equald., 100% basis. lb. .26 - —
40% soln., dms., frt. equald., 100% basis lb. .33 - —
dms., l.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald, 100% basis lb. .26 - —
Monopentaerythritol, tech. bgs., c.l., dlvd lb. .29 - —
bgs., l.c.l. lb. .30 - —
Monopotassium glutamate, dms., 1,000-lb lots, frt alld lb 3.05 - —
dms. 100-lb lots, same basis lb 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.02 - 1.07
Monosodium phosphate (see sodium phosphate monobasic)
Montan wax, Calif., refd., bgs. lb. .29 - .30
Imp., crude, Bohemian, bgs. lb. .25 - .26
German, bgs. lb. .25 - .26
Morphine, cns. 100-oz., f.o.b. works, oz. 12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E lb. .55¼- —
dms., l.c.l., dlvd. E lb. .56¾- —
tanks, dlvd. E lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb lots lb. 4.40 - 4.90
cns., 25-lb lots lb. 4.50 - 5.00
Ketone fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb lots lb 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots lb. 1.26 - —
cns., 25-lb. lots lb. 1.40 - —

Mustard seed, Danish, yellow, bgs. lb. .11 - —
Montana, yellow, bgs. lb. .10½- —
Oriental, bgs. lb. .09 - —
Mustard, oil, syn., bots. lb. 1.60 - 1.85
Myristic acid, bgs. lb. .23¼- .23½
tanks lb. .22¼- —
Myrrh gum, cs. lb. .65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, f.o.b., frt. equald lb. .06¼- .06½
Refd. indust chipped, crushed, bgs., frt. equald lb. .14½- —
tanks, same basis lb. .11¾- —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis lb. .15½- —
cs. 50 lbs. c.l. same basis. lb. .15¾- —
1-lb pkgs. c.l. same basis. lb. .18½- —
a-Naphthol, dms. frt. alld lb. 1.02 - —
b-Naphthol tech. flake bbls., c.l., works lb. .34 - —
bbls. l.c.l. works lb. .36 - —
Naphthol ITR red toner, bbls., works lb 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, dms., frt. alld lb. .53 - —
b-Naphthylamine tech. flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib dms. lb. 8.50 - —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP dms., frt. adjusted lb. 7.00 - 8.00
Neomycin sulfate fib dms. 1-kilo basis activity gram. .18 - —
fib dms 100-999 gram lots, basis activity gram. .25 - —
Tech., fib. dms. gram. .13¼- —
Neopentylglycol, dms., c.l., dlvd lb .32 - —
dms. l.c.l. same basis lb 33 - —
Neroi, dms. lb 4.75 - —
Neroli oil, NF, French, bots. lb 425.00 - 575.00
Tunisian, bots lb 400.00 - —
Nerolin, cns lb 2.45 - 3.85
Neville and Winther's acid, dms., frt. alld lb. 1.50 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., divd. lb. .72 - .79
Nickel carbonate, bbls., divd. lb. .83 - .90
Nickel chloride, bbls., divd. lb. .39½- .47½
Nickel formate, bbls. ton lots, frt. alld lb. .78 - .79
Nickel metal, electro cathodes, cs., works lb. .81¼- —
Nickel nitrate, dms., frt. alld lb. .34½- .36½
Nickel oxide, black, bbls. lb. .92 - —
Green, bbls. lb. .91 - —
Nickel sulfate, bgs., c.l., divd lb. .30 - —
bgs., l.c.l., divd. lb. .30½- .33
Nicotinamide, USP, 50-kilo, dms., frt. equald kilo. 5.75 - —
dms., smaller lots, same basis. kilo. 5.85 - 6.05
Nicotinamide hydrochloride, 50-kilo dms., divd kilo. 6.50 - 7.30
Nicotine sulfate 40% dealers, 50-lb. dms frt alld lb 1.20 - —
40% manufacturers 500-lb. dms., frt alld lb 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. lb 10¼- —
Nikethamide, cbys. lb 5.00 - —

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Use Exchange Lemon Oil, U.S.P., California Cold Pressed. It delivers more of everything. More flavor. More aroma. More uniformity.
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Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 - —
cbys., t.c.l., works E 100 lbs. 6.05 - 6.85
38° Be., cbys. c.l., works E 100 lbs. 6.25 - —
cbys., t.c.l., works E 100 lbs 6.55 - 7.35
40° Be., cbys., c.l., works E 100 lbs. 6.75 - —
chys., t.c.l., works E 100 lbs. 7.05 - 7.85
42° Be., cbys., c.l., works E 100 lbs. 7.25 - —
cbys., t.c.l., works E 100 lbs 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs 4.90 - —
Nitric acid CP, NF, consumer, cbys., extra, c.l., works lb. .18½- —
chys. extra t.c.l. works, lb. .20 - —
5-pint bots. extra cs. c.l., same basis lb. .22½- —
5-pint bots. extra cs. t.c.l., same basis lb. .24 .25
dms. frt alld lb. .99 - —
4-Nitro-2-aminophenol, tech., paste, dms., t.c.l., works lb. .64 - —
m-Nitroaniline, crvst., dms., frt. alld lb 1.15 - —
Paste, dms. frt. alld., 100% basis 1.10 - —
o-Nitroaniline, flaked, dms. t.l., frt. alld lb. 49 - —
dms. t.t.l. frt alld lb .51 - —
o-Nitroaniline orange toner, kgs. lb 1.50 - —
p-Nitroaniline, c.l., t.l., dms., 20,000 lb min., dlvd lb. .44½- —
dms. t.c.l., same basis lb. 46½ —
o-Nitroanisole, tech. tanks frt alld. lb. .36 - —
p-Nitroanisole, tech., solid, dms., frt alld lb. .72 - —
Nitrobenzene, dbl dist., dms., c.l., frt. alld lb. .13 - —
dms., t.c.l. frt. alld. lb. .14 - —
tanks, frt. alld. lb. .12 - —
p-Nitrobenzoic acid, dms., c.l., t.l., works lb. .53 - —
dms., t.c.l., works lb. .54 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼ ½ ¾ 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .39½- —
bbls., t.c.l., same basis lb. .42½- —
18-25 cps., bbls., c.l. same basis. lb. .41½- —
bbls., t.c.l., same basis lb. .44½- —
250-400, 600-1,000 seconds, bbls., t.c.l., same basis lb. .44½- .47½
Spirit soluble, 30-35 cps., ¼ ½ seconds, bbls. c.l., same basis lb. .44 - —
bbls., t.c.l., same basis lb. .47 - —
5-6 cps. 40-60 seconds, bbls., c.l. same basis lb. .43 - —
bbls., t.c.l., same basis lb. .46 - —
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable
o-Nitrochlorobenzene dms. c.l., frt. alld lb .15 - —
dms., t.c.l. same basis lb .16 - —
tanks, same basis lb .13 - —
p-Nitrochlorobenzene dms. lb. .26 .27
2-Nitro-p-cresol, tech., dms., t.l lb. .71 - —
dms., t.t.l. lb. .73 - —
Nitroethane, dms., c.l., dlvd. E lb. .28½- —
dms., t.c.l., dlvd. E lb. .30 - —
tanks, dlvd E lb. .26 - —
Nitroethane prices West of Rockies are 1c. higher
Nitrogen solutions, direct application, tanks, f.o.b. works unit-ton 1.64 - —
Manufacturing type, same basis, unit-ton. 1.32 - —
Nitrogen tetroxide, indust., tankcars, f.o.b Hopewell, Va lb. .065 - —
Cyls. t.l., min 5 tons, same basis lb. .07½- —
Cyls., t.c.l., t.t.l. same basis lb. .15 - —
Nitrogenous process tankage, bulk, works unit-ton 4.50 5.00
Nitrogenous sewage sludge, bulk, f.o.b Chicago works. unit-ton. 3.35 - —
(The foregoing price is per unit NH_3, plus 50c. per unit a.p.a., bulk, f.o.b producers' works, Chicago.)
Nitromethane, dms., t.l., dlvd. E lb. .26 - —
dms., t.t.l., dlvd. E lb. .27½- —
Nitromethane prices West of Rockies are 1c higher
a-Nitronaphthalene, bbls. frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms. c.l. frt alld. lb 45 - —
dms. t.c.l. frt alld lb. 47 - —
1-Nitropropane, dms. c.l., frt. alld. E. of Rockies lb. .28½- —
dms., t.c.l., same basis lb. .30 - —
tanks, same basis lb. .26 - —
1-Nitropropane prices West of Rockies are 1c per lb higher
2-Nitropropane, dms. c.l., frt. alld. E of Rockies lb .18½- —
dms., t.c.l., same basis lb. .20 - —
tanks, same basis lb. .16 - —
m-Nitrotoluene tech. dms. frt alld. lb. .50 - —
o-Nitrotoluene, dms. c.l., frt. alld lb .15 - —
dms. t.c.l., frt alld. lb .16 - —
tanks frt alld lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms. t.c.l. works lb. .28 - —
flake, dms., c.l., t.l., works lb. .27½- —
dms. t.c.l. works lb 28 - —
m-Nitro-p-toluidine, dms. lb. 1.25 - —
Nonylphenol, dms. c.l. frt. alld. lb. .22½- —
dms., t.c.l., frt. alld lb. .23½- —
tanks, frt. alld lb. .20 - —
Nonylphenol prices on shipments to Western States are 2c. higher.
Noscapine, cns. oz. 8.00 - —
Nutmegs, East Indian, whole, bgs. lb. 1.00 - —
West Indian, bgs. lb. .85 - —
Nutmeg oil, USP dist., East Indian, cns lb. 8.00 -12.00
West Indian, cns. lb 9.00 -12.00
Nux vomica, bls. lb. .20 —
Powd., bbls., bxs. lb. .20 .22

O

Ocher (see iron oxide, yellow, nat.).
Ocotea cymbarum oil, dms. lb. .44 - .47
Octane, indust., tanks, Bayonne, N.J. gal. .20 - —
1-Octanol, tech., dms., c.l., dlvd., Zone 1 lb. .41½- —
dms., t.c.l., dlvd. Zone 1 lb. .43½- .44½
tanks, dlvd. Zone 1 lb. .37½- —
Octyl alcohol, perfumers grade, bots. lb. 1.60 - 3.25
Octyl alcohol, tech. (see 1-Octanol, tech).
n-Octyl-decyl alcohol blend, tanks, dlvd lb. .19 - —
n-Octyl n-decyl phthalate, dms., c.l., frt. alld. E. of Rockies lb. .29½- —
dms., t.c.l., same basis lb. .31 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .27½- —
tanktrucks, 2,000 gals., same basis lb. .27 - —
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½- —
dms., t.c.l., same basis lb 55 - —
Octylphenol, bgs., c.l., works lb. 22½- —
bgs., t.c.l., works lb 23 - —
tanks, works lb .21½- —
Octylphenol in dms., 11c. higher

OILS

Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liquid, dms lb. .15¾- .16
tanks lb. .14¼- —
Oleic acid, dbl.-dist. (white), dms. lb. .18½- .21
tanks lb. .16 - —
S. D., dms. lb. .17½- .20
tanks lb. .15 - —
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs lb. .15 .20
Tears, cs. lb 22 .30
Olibanum oil, bots lb 5.00 7.65
Extra fine, bots lb 8.00 9.50
Olive oil, edible, dms., spot, ex whse gal. 2.35 - 2.40
Olivine, crude, works ton 12.00 - —
20 mesh, works ton 15.00 - —
100 mesh works ton 20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works oz. 19.20 - —
gran., cns., 50 lbs. same basis. oz. 21.65 - —
powd., cns. 50 lbs. same basis oz. 21.65 - —
Orange oil, expressed, USP, Calif., cns., dms lb. 70 - 90
Calif., sweet, cns dms lb. 60 - —
Florida, cns., dms lb. .25 - .50
Messina, cns. lb 3.25 5.00
West Indian, bitter, cns., dms lb 2.50 3.50
Orange peel, bitter, Haitian, bls lb 18 .20
Sweet lb 28 .30

ORANGE PIGMENTS

Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns lb 1.80 2.30
Orris root, Florentine, bls lb .55 - —
powd., bbls., bxs lb 65 - —
Verona, bls lb 35 - —
powd. bbls., bxs lb 45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline)
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline)
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Pheretidine)
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base)
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots. gram 3.00 4.00
Ouricury, wax, crude, bgs lb. .50 - .52
Refd., pure, bgs lb. .53 - .55
Oxalic acid, bgs., c.l., works lb. .18 - —
bgs., 10,000-lb. lots, works lb. .19 - —
bgs., smaller lots, works lb. .20½- —
Oxalic acid in drums is priced ½c. per lb higher.
b-Oxynaphthoic acid, pigment manufacture, dms., frt alld lb. .912 - —
Dyestuff manufacture, dms., same basis lb 1.03 1.14
Oxyquinolin sulfate, cns., 100-lb lots, works lb 4.75 5.00
cns., smaller lots, works lb 4.92 5.17

P

Palm oil, clarif., dms lb. .14½- .15½
tanks, New York lb. .11¾- —
Palm oil acid, double dist. dms. lb. .16½- .19
tanks lb. .14 - —
single dist., dms. lb. .16 - .18½
tanks lb. .13½- —
Palmarosa oil, cns lb. 5.25 - 6.50
Papain, powd., bots. lb. 3.25 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz to 100-oz lots oz 5.00 —
cns., smaller lots oz 5.05 5.20
Papaverine sulfate, nat., or syn., USP, cns oz. 7.10 - 7.35
Paprika, Bulgarian, bgs lb. .34 - —
Hungarian, bgs. lb. .33 - —
Spanish, bgs. lb. .39 - —
Para-aminobenzoic acid (see p-Aminobenzoic acid)
Parachlorobenzoic acid (see p-Chlorobenzoic acid)
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine)
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol)
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- .0660
Fully refd., 122°-124°F., ASTM, lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
Paraffin, fully refd., 132°-134° F. lb. .0765- —
ASTM, tanks, refy., 135°-137° F lb. .0765- —
AMP temperatures are an arbitrary 3°F higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .17½- —
Paraffin wax (see Paraffin)
Paraformaldehyde 91% flake, bgs., c.l., frt alld lb. .10 —
bgs. t.c.l., frt alld lb. .12 .13
91% powd., bgs., c.l. ex whse lb. .1715- —
bgs. t.c.l. ex whse lb. .1865- —
Paraformaldehyde USP-X, fib. dms., c.l., f.o.b., works lb. .19 - —
fib. dms., 1,000-lb. lots, same basis lb. .20 - —
fib. dms., smaller lots, same basis lb. .21½- —
Paraldehyde, tech., 98% 55-gal. dms., t.l., dlvd E lb. .14 - —
55-gal dms., t.c.l., dlvd. E lb. .15½- —
tanks, dlvd. E lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol)
Para-tertiary-amylphenol (see p-tert-Amylphenol)
Para-tertiary butylphenol (see p-tert-Butylphenol)
Parathion, ethyl, dms. frt alld lb. .44 —
Parathion prices 2c per lb higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide)
Para toner, red, bbls. lb. 1.30 - —
Chlorinated, kgs. lb. 1.41 - —
Passion flower herb, bls lb .35 40
Patchouli oil, imp., cns. lb. 5.00 - 5.60
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies lb. 1.00 —
Peacock blue price 1c higher W of Rockies.
Peanut meal, old process, 45%, bgs., f.o.b. mills ton 72.50 - —
solvent, same basis ton. 70.00 - Nom.
Peanut oil, crude, tanks, f.o.b. mills lb. .19 - —
Refd., dms. lb. .24 - .24¼
tanks lb. .22 - —
Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b shipt pt kilo. 4.52 —
Pelargonic acid, dms., c.l., dlvd. E lb. .27½- —
ton lots, same basis lb. .28½- —
tanks, same basis lb. .25 - —
Penicillin, potassium, cryst., bulk, 1,000,000 units .018 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .020 - —
Pennyroyal oil, USP, imported, cns. lb. 2.35 - 2.80
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., less than ton-lots, same basis. lb .29 - —
bgs., c.l., t.l., 2,000 lb. minimum, same basis lb. .22½- —
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .29 - —
bgs., t.c.l., dlvd lb. .30 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 —
Pepper, black, Malabar, bgs lb. .38½- —
Lampong, bgs. lb. .38½- —
Red, Funtuas, bgs. lb. .30 - .31
Japanese, Hontaka, bgs lb. .35 - —
Santaka, bgs. lb. .30 - .31
Sudanese, bgs. lb. .40 - —
White, Muntok, bgs lb. .51 - —
Peppermint leaves, dom., USP, bls., dms lb. No stocks.
imp., USP, dms. lb. .85 .90
Peppermint oil, nat., dms. lb. 3.50 - 4.00
Redist., USP, dms. lb. 3.75 - 4.25
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., t.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd lb. .12¼- —
Peri acid, dry, bbls., frt. alld lb. 1.60 —
Paste, bbls. frt. alld lb. 1.55 - —
Peru balsam, dms lb 1.15 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms lb. 2.45 - —
Petrolatum, NF, cream, dms., c.l., refy lb. .085 - .08625
dms., t.c.l., dlvd lb. .11125-11250
tanks, refy. lb. .0625- .06375
NF, extra amber, dms., c.l., refy. lb. .07625- —
dms., t.c., dlvd lb. .1025- —
tanks, refy. lb. .05375- —
NF, soft yellow, dms., c.l., refy lb. .07625- —
dms., t.c.l., dlvd. lb. .1025- —
tanks, refy. lb. .05375- —
USP, lily white, dms., c.l., refy lb .09125-.09675
dms., t.c.l., dlvd lb. .1175- .1225
tanks, refy. lb. .06875- —
USP, snow white, dms., c.l., refy. lb. .09625- —
dms., t.c.l., dlvd. lb. .1225- —
tanks, refy. lb. .07375- —
Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., t.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., t.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms. t.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms. same basis lb. 1.08 - —
Phenobarbital, USP, dms., 100-lbs., frt. alld lb. 2.85 - 3.25
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt alld E of Rockies lb. .15 - —
non-ret. dms., t.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
82-84% tar dist., dms., c.l., same basis lb. .14¾- —
non-ret. dms., t.c.l., same basis lb. .15¾- —
tanks, same basis lb. .12¾- —
Phenol, 39°C., or above, tar dist., non-ret. dms., c.l., same basis. dms., c.l., same basis lb. .17 - —
non-ret. dms., t.c.l. lb. .17 - —
tanks, same basis lb. .14 - —
Phenol, USP syn. dms., c.l., t.l., frt. alld. lb. .16½- —
dms., t.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Phenolphthalein, USP or yellow, 250-lb dm., 2,000 lbs., frt. alld lb. 1.30 - —
250-lb dm., same basis lb. 1.35 - —
Phenothiazine drench, fib dms., t.l., dlvd lb. .46 - —
fib dms., ton lots, dlvd lb. .49 - —
NF, fib dms., t.l., dlvd lb. .45 - —
fib dms., ton lots, dlvd lb. .48 - —
Phenyl acetate, dms., 100-lb. lots, works lb .50 - —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50% bots lb 2.15 2.35
100%, bots. lb 3.80 4.00
Phenylacetic acid, pure, cryst., cns lb. 1.25 1.75
di-Phenylalanine, dms., 1-kilo kilo. 65.00 - —
fib dms., 200-lb. lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd E lb. .50 - —
dms., t.c.l., dlvd E lb. .51½- —
1-Phenyl-3-carbethoxy pyrazolone-5, tanks, dlvd. E lb. .47½- —
m-Phenylenediamine, dms., c.l., t.l., frt. alld lb. 1.08 - —
t.c.l., t.t.l., same basis lb 1.10 - —
o-Phenylenediamine, comi, fib. dms., 100 to 1,000 lbs., works. lb. 1.70 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., t.c.l. same basis lb. .76¼- —
Phenylethyl acetate, ndts. lb. 1.25 1.40
or more, frt. alld lb. 1.20 —
dms. smaller lots, frt. alld lb. 1.70 1.85
Phenylethylphenyl acetate, nots lb 4.00 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb dms. lb 1.45 —
2-Phenylethyl alcohol, extra, dms. lb. 1.14 1.50
Standard, dms lb 1.10 1.60
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd E lb. 1.80 - —
fib dms. smaller lots, dlvd E lb 2.10 - —
o-Phenylphenol, dms., t.c.l. works. lb. .48 .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs. t.c.l., works lb. .43 - —
Phloroglucinol, comi. fib. dms., b-Phenylthylamine, dms., 20,000 lbs. works lb 6.40 - —
CP, bots., works lb 17.75 - —
Tech. fib dms. works lb 10.45 - —
Phloxin red toner (see Eosin red toner)
Phosgene, ret cyls. works lb 15½- —
Phosphate defluorinated (see under D)
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 46.50 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines, short-ton. 5.22 - 5.629
68-70%, b.p.l., bulk, c.l., same basis short-ton. 6.08 - 6.089
70-72%, b.p.l., bulk, c.l., same basis short-ton. 6.66 - 6.669
74-75%, b.p.l., bulk, c.l., same basis short-ton. 7.56 - 7.569
76-77%, b.p.l., c.l., bulk, same basis short-ton. 8.45 - 8.459
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.72.
Phosphoric acid, food grade, 75%, chys. c.l., works, E., frt. equald 100 lbs. 7.00 - —
chys. t.c.l., same basis 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 - —
80% chys. c.l. frt equald 100 lbs. 7.85 —
cbys. t.c.l., works 100 lbs. 8.10 - 8.35
tanks, t.w., works 100 lbs. 6.00 - —
NF, 85%, cbys., c.l., works. 100 lbs. 8.50 - —
chys., t.c.l., works 100 lbs. 8.75 - 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
White (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20½
dms., t.c.l., works, frt. equald lb. .21½- —
tanks, works, frt equald. lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., t.c.l., works lb. .15 - —
tanks, works, frt. equald lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms. t.c.l. works lb. .14½- .15½
Solid, dms., c.l., works lb. .11½- —
dms. t.c.l. works lb. .12½- .13½
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms. t.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms., t.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., t.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .15½- —
bgs., t.c.l., same basis lb. .16½- —
tanks, same basis lb. .15 - —
Phthalimide, 97-98%, dms., frt. alld lb. .65 - —
Phthalocyanine blue toner, crystallizing type, bbls. dlvd. E. of Rockies lb. 3.00 - —
Crystal stable type, same basis lb. 3.25 - —
Aqueous dispersions, same basis lb. .68 - —
Polyolefin blue colors, same basis lb. 1.66 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.52 - —
Phthalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, all grades, bbls., works lb. 3.50 - —
Aqueous dispersions, same basis lb. .78 - —
Polyolefin green colors, same basis lb. 1.68 - —
Resinated, bbls. lb. 3.10 - —
Water dispersable, bbls. lb. 1.69 - —
Phthalocyanine green prices 1c. higher W. of Rockies
Phthalylsulfacetamide, fib. dms., 1,000-lb. lots or more lb. 5.00 - —
NF, fib dms. lb. 5.20 - —
a-Picoline, dms. c.l., works, frt. equald lb. .46 - .48
dms., t.c.l., same basis lb. .46½- .49
tanks, same basis lb. .43 - .46
b-Picoline, 98% dms., t.l., works. lb. .65 - —
dms., t.c.l., same basis lb. .68½- —
tanks, same basis lb. .60 - —
b,g-Picoline, 5°C dms., c.l., works. lb. .32½- —
dms., t.c.l., works lb. .33 - —

g-Picoline, tanks, f.o.b. works lb. .90 - —
dms., c.l., t.l., same basis lb. .70 - —
dms., l.c.l., l.t.l., same basis lb. .73½- —
Picric acid, NF bbls. lb. .85 - —
Tech., bbls lb. .50 - —
Pigment green B, kgs lb. 1.55 - —
Pilocarpine hydrochloride, USP, bots oz. 4.75 - 5.25
Pilocarpine nitrate, USP bots., vials. oz. 4.65 5.15
Pimento, Jamaican, bgs. lb. .69 - .72
Mexican, bgs. lb. .60 - —
Pimento berry oil, NF, dms. lb. 3.75 - 9.25
Pimento leaf oil, crude, cns lb. 2.50 - 2.60
Pine oil, dest.-dist., dms., l.c.l. works lb. .15 - —
dms. l.c.l. ex whse, New York. lb. .173 - —
Steam-dist. dms. ex whse., New York lb. .185 - —
dms., dlvd lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberica oil).
Pink root, bls. lb. 2.50 - —
Piperazine anhyd., dms. c.l., frt. alld. E lb. 1.80 - —
dms., l.c.l., frt alld. E lb. 1.85 - —
Piperazine citrate, 36% dms., 1,000 lbs or more, frt alld lb. 1.33 - —
Piperazine dihydrochloride, 51%, dms. 1,000 lbs or more, frt alld lb. 1.29 - —
Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld lb. .90 - —
dms., 200-900 lbs., frt. alld lb. .93 - —
Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt. alld lb. 1.11 - —
Piperidine, dist., 98% min., 5 dms. or more, l.c.l., l.t.l., f.o.b. works lb 2.65 - —
1-4 dms., same basis lb 2.70 - —
dms., c.l., t.l., frt. equald lb 2.55 - —
Piperonyl butoxide dms. dlvd. E lb. 4.50 5.05

PITCHES

Pitch quotations are listed individually. For example, prices on Pitch, coaltar, may be found in the C's under Coaltar pitch.

Platinum metal, works oz. 81.00 -85.00
Pleurisy root, bls. lb. .45 .50
Podophyllum resin, NF, dms. lb. 12.50 -15.50
Poke root, bls. lb. .19 - .22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 - —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Poppy seed, Argentine, bgs. lb. No stocks.
Dutch, bgs. lb. .12 - —
Danish, bgs. lb. .10 - —
Polish, bgs. lb. .11 - —
Turkish, bgs. lb. .11 - —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs 4.25 - —
dms., l.c.l., same basis 100 lbs. 5.25 - —
tanks, same basis 100 lbs. 3.70 - —
Potash, reg., flake, 88-92%, dms., c.l., reg., flake, 88-92%, dms., c.l., same basis 100 lbs. 9.55 - —
dms., l.c.l., same basis, 100 lbs. 11.03 - —
solid, 88-92%, dms., c.l., works 100 lb. 9.10 - —
dms., l.c.l., works 100 lbs. 10.60 - —
Potassium acetate, NF, 200-lb. dm., f.o.b. works E lb. .33 - —
Potassium bicarbonate, USP, gran., dms lb. .22 - —
powd., dms lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., l.c.l., works lb. .18½- .19¼
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald lb. .37 - —
100-lb. bgs., 5,000 lbs., 1 shipt., same basis lb. .38 - —
100-lb. bgs. smaller lots, same basis lb. .40 - —
Potassium borohydride, powd., dms., works lb. 16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots.
Potassium bromate, 200-lb. dms., c.l., frt alld lb, .49 - —
Potassium bromide, USP, gran., bbls., kgs lb. .39 - .40
Potassium carbonate, dom., NF, gran., bbls., dms lb. .22 - .24
Dom. tech. powd., bbls., dms lb. .21 - .22
Dom., calcinated, bgs., c.l. works. 100 lbs. 8.56 - —
bgs., l.c.l. same basis 100 lbs. 9.55 - —
Dom. hydrated, 83-85%, bgs., c.l., works 100 lbs. 7.10 - —
bgs. l.c.l. works 100 lbs. 8.15 - —
Potassium chlorate, cryst. dms., c.l., works lb. .12¼- —
dms., l.c.l., works lb. .13½- .14½
Powd., dms., c.l., works lb. .12¾- —
dms. l.c.l. works lb. .14 - .15
works lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works lb. .16¾- —
NF, gran., 25-lb metal dms lb. .36 - —
NF powd., dms., 2,000 lbs. or more, works lb. .17¼- —
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works ton. 31.00 - —
bgs., c.l., works ton. 36.00 - —
99.3% KCL, bulk, c.l., works ton. 30.00 - —
bgs., c.l., works lb. 35.00 - —
USP, cryst., dms. lb. 33.00 - —
USP, gran., dms. lb. .21 - .23
USP, powd., dms. lb. .24 - .26
Potassium chloride, agricultural (see Potassium muriate)
Potassium chromate, tech., dms., works lb. .50 - .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b., works E lb. .41½- —
Potassium cyanide, dms., 20,000-lb. lots or more, dlvd. E lb. .42½- —
dms., 5,000-19,999-lb. lots, works lb. .43 —
dms., 2,000-4,999-lb. lots lb. .43½- —
dms., 1,999-lb. lots or less lb. .44½- .46½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms. smaller lots works lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms. smaller lots lb. .29 - —
Potassium fluoborate, fib dms., c.l., works lb. .30 - —
fib dms. l.c.l. works lb. .31 - —
Potassium fluoride, dms. works lb. .36 - .37
Potassium gluconate, 100-lb dm., f.o.b. works E lb. 1.67 - —

Potassium gustacol sulfonate, NF, dms lb 2.10 2.90
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb dms. 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF fib. dms., 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP cryst., gran., 250-lb. dm., f.o.b. works lb. 1.55 - —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works, unit-ton. .17 - .1765
Potassium metabisulfite, gran. dms., lb. .16 - —
Powd., dms lb. .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton. .37 - .39
bagged 60% minimum K_2O, same basis ton. 27.20 -28.40
Potassium muriate, gran., bulk, c.l., works unit-ton. .40 - .41
bagged, 60% minimum K_2O, same basis ton. 29.00 -30.20
Inside prices apply to material contracted for prior to July 1, 1961.
Outside prices apply to material contracted for after that date but also for delivery during the current month
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs. 17.00 —
bbls., smaller lots 100 lbs. 18.00 -19.00
gran., bgs. 20-ton lots 100 lbs. 9.50 —
bgs., smaller lots 100 lbs. 11.00 -12.00
powd., bgs. 20-ton lots 100 lbs. 10.50 —
bgs. smaller lots 100 lbs. 12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b. works E lb. .32 - —

Potassium pentaborate, gran., dms., c.l., works ton. 219.50 - —
dms., ton lots, ex whse 100 lbs. 17.48 - —
dms., smaller lots, ex whse 100 lbs. 18.73 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms. l.c.l., works lb. .19 - .20
Potassium permanganate, coml., kgs., works lb. .25 - .33
USP dms. works lb. .29 - .35
Potassium pyrophosphate, tetrabasic, dms., works lb. .1475- 1575
Potassium prussiate red (see Potassium ferrocyanide)
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate electrical grade, 30° Be. 1.2.0. dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be 1:2.1, dms., c.l., works. 100 lbs. 5.95 - —
dms. l.c.l. 5 dm. lots or more, works 100 lbs. 6.70 - —
tanks, works 100 lbs. 5.60 - —
Glass grade, bgs., c.l., works 100 lbs. 17.30 -18.00
bgs., l.c.l., works 100 lbs. 17.80 - —
Soln., 29° Be. 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms. l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs. 4.60 - —

Potassium silicofluoride, bgs. works lb. .09½- .10
Potassium silicofluoride in drums, 0.4c. per lb higher.
Potassium stannate, dms. frt alld. lb. .866 - .938
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works unit-ton. .70½- .72½
Inside price applies to tonnage contracted for prior to July 1, 1961.
Outside price applies to tonnage contracted for after that date but also for delivery during the current month
Potassium sulfate NF VII, cryst., dms. lb. .31 .33
NF VII, gran., 400-lb. dm lb. .16 - —
NF VII, powd. 400-lb dm lb. .17 - —
Potassium sulfocyanate NF cryst., (see Potassium thiocyanate)
Potassium thiocyanate, NF cryst., dms. works lb. .86 .88
Tech., dms., works lb. 77 79
Potassium titanate, ctns. c.l., works lb. 16¼- —
ctns., 5-ton lots, works lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price. ton. 13.45 - —
bulk, works, July forward ton. 14.00 - —

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Potassium-sodium tartrate, NF gran. or powd. 250-lb. dms., c.l., works E lb 42½- —
250-lb. dms. 5,000-lb. lots, same basis lb. 43 —
250-lb. dms. same basis lb. 43½- —
Potassium-titanium fluoride, fib. dms. works lb. .39 .40
Potassium-zirconium flouride, fib. dms. c.l. works lb. .50 —
fib. dms., t.c.l. works lb. .52½- .55
Pregnenolone bots. gram No prices.
Pregnenolone acetate bots. gram No prices.
Procaine hydrochloride USP antibiotic grade dms., 2,000-lb. lots, frt. alld lb. 2.10 2.25
USP, ampule grade, dms., 1,000-lb. lots, frt, alld lb. 2.40 • —
dms. 500 lbs lb 2.45 —
dms. 100 lbs lb 2.50 —
Progesterone USP bots gram No prices.
Pregnenolone acetate bots gram No prices.
Propenyl guaethol dms lb 24.30 -27.00
b-Propriolactone tech., dms., c.l., f.o.b works lb. 47½- —
dms., t.c.l. t.l. same basis lb. 48½- —
tanks, same basis lb. 45 —
Propionic acid syn. pure, dms. c.l. dlvd lb 23¼- —
dms., t.c.l. dlvd. lb. 24¾- —
tanks, dlvd lb. 20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. 14¾- —
dms., t.c.l., dlvd lb. 16¼- —
tanks, dlvd lb. 12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 .15
dms., t.c.l., dlvd lb. .15½ .16½
tanks, dlvd lb. 11½ .12½
n-Propyl gallate, dms., 100 to 2,000-lb lots, works lb 3.90 4.40
n-Propyl-p-hydroxybenzoate, USP, dms lb 2.30 2.40
Propyl thiouracil bots., 50 kilo lots or more kilo.55.00 —
bots., smaller lots kilo 55.10 -55.30
n-Propylamine dms. c.l., dlvd lb 1.24 —
dms. t.c.l. same basis lb 1.255 —
n-Propylene dichloride consumers', dms. c.l. dlvd E lb. 0845- —
dms., t.c.l. same basis lb. 0995- —
tanks same basis lb 07 —
Propylene dichloride prices in West 1c. higher same basis
Propylene glycol indust., dms., c.l., dlvd E lb. .15 —
dms., t.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP dms., c.l., dlvd. E lb. .17 —
dms. t.c.l. same basis lb. .18¾ —
tanks, same basis lb. 14½- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 —
dms., t.c.l., same basis lb. .21 —
tanks, same basis lb. .18½- —
Propylene oxide dms., c.l., dlvd & lb. .17 —
dms., t.c.l., dlvd. E lb. .18½- —
tanks, dlvd E lb. 14½- —
Psyllium seed, black, bgs lb. .42 .45
Blonde bgs lb. 18 .20
Husks, bgs. lb. .45 .48
Pumice, dom., grd. coarse to fine, 0, ½ 1, 1½ 2, 3, bgs., ton lots lb. 03¾ 04½
bgs., smaller lots lb. 03½ —
Imp., Italian, silk-screen, coarse, bgs., ton lots lb. .06½- —
fine, bgs ton lots lb 04 —
sun dried, coarse, bgs ton 60.00 —
fine, bgs. ton 60.00 -70.00
Pumpkin seed, bgs lb. .25 .26
Pyrethrins syn (see Allethrin).
Pyrethrum flowers, fine grd 0.9% pyrethrins, bgs., ton, works lb 50 • —
Powd., 1.3% pyrethrins, bgs., ton works lb 71 • —
Pyrethrum liquid, 20 1 basis (2 grams pyrethrins per 100cc odorless base) dms. works, gal 9.60 9.80
100/1 basis 10 grams pyrethrins per 100cc odorless base), dms., works gal 45.90 -46.90
Pyrethrum oleoresin, dewaxed 20% dms., works lb 11.00 11.35
purif. 20% dms. works lb 11.00 11.35
Pyridine, denat. dms. c.l. works and frt. equald gal 2.77 • —
dms., t.c.l. same basis gal 2.80 • —
Refd., 2° non-ret dms., c.l., same basis lb. 75½- —
dms., t.c.l., same basis lb. 76 • 76½
tanks, same basis lb. 71 —
Potassium persulfate, dms., c.l., works lb. .17½ —
dms. t.c.l. works lb. .18 .21
Pyridoxine hydrochloride, USP, dms., f.o.b. works kilo.90.00 —
Pyrites, Canadian 48-50% S, mines, long ton 4.50 5.00
Pyrocatechol (see Catechol)
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid tech. bbls., 100-lbs., f.o.b., works lb 3.50 • —
Pyrogallol NF 100-lb. dms lb 3.50 • —
Pyroxylin USP bots lb 9.50 • —

Q

Quassia chips lb .10 • —
Quicksilver (see Mercury metal)
Quince seed, bgs lb 1.55 • 1.75
Quinidine sulfate, USP, 1,000-oz. dm oz. 78½- —
Quinine, NF, 1,000-oz. dm. oz. .3750- —
Quinine bisulfate USP 1,000-oz dm. oz. .28 —
Quinine hydrochloride, 1,000-oz dm oz. .3650- —
Quinine sulfate USP 1,000-oz dm. oz. .3150- —
Quinoline dms., c.l. frt. equald lb 50¾ —
dms., t.c.l., same basis lb 51¼ —
tanks, same basis lb 50 —

R

R salt paste, dms., c.l., t.l., frt. alld., 100% basis lb. .98 —
Powd., dms., c.l., t.l., frt. alld, 100% basis lb 1.08 —
Rapeseed oil, dms lb. .17½- .17¾
tanks lb. .15½- —
Rare earth oxalate, NF, 45-50% bgs. works lb 1.15 —
Rauwolfia serpentina root, powd., bbls. dms lb 1.00 1.20
Red carmine No 40 (see Carmine)
Red oil (see Oleic acid)

RED PIGMENTS

Red pigment quotations are listed individually For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.30 • —
Reserpine, cryst. bots gram 1.25 • —
Resorcinol, tech. grade, bgs., c.l., works, frt equald lb. 77½- —
bgs., t.c.l., same basis lb. 78½- —
Resorcinol in dms. 1c. per lb more
Resorcinol monoacetate, NF dms lb 2.50 • —
USP, powd., dms., works lb 2.95 • —
Rhatany root, bgs lb 14 • .16
Rhodamine red toner, molybdated, PMA, kgs. works lb 6.00 • —
Tungstated, PTMA works kgs lb 6.60 • —
Rhodinol, 5-lb cans lb.42.00 -51.00
Synthetic lb.14.00 -16.00
Rhubarb root, India, whole, bgs lb 25 • —
powd., bgs. lb 35 • —
Riboflavin, USP fib dms., kilo or more, dlvd kilo.36.00 • —
Riboflavin-5 phosphate-sodium, fib. dms. kilo or more, dlvd. kilo.104.70 • —
Rice bran oil, clarified, dms. t.c.l. lb. .15½- —
tanks, dlvd. E lb. .14 • —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing)
Rose oil, nat., Bulgarian, bots lb.1,152.00- —
Turkish, bots., otto lb.600.00 -700.00
absolute lb.145.00 —
Rosemary oil, Spanish, NF, cns., dms lb 1.15 • 1.20
Spanish, tech., cns., dms lb .80 .95
Rosin gum and wood (see Naval Stores in Protective Coatings market)
Rotenone, fib. dms., works unit-lb. .10½- —
Resin, 25-45% fib dms. works, unit-lb. .10½- —
Rottenstone, bgs. 5-ton lots, exwhse lb. .03¾- —
bgs. ton lots, same basis lb. 04¼- —
Rubber solvent petroleum 115°F-245°F b.r., tankcars New Jersey and New York gal. .19 —
Group 3 gal. .13875 —
Houston Texas gal. .155 —
Rue oil, bots. lb. 2.55 • 2.75
Rutin, NF fib dms. 10 kilo lots, kilo.11.00 • —
fib. dms., 5 kilo lots kilo.11.50 • —
fib. dms., 1 kilo kilo.13.00 • —
Ryania, 100% powd., bgs., c.l., works lb .22 • —
bgs., t.c.l., same basis lb .24 • —

S

S acid, bbls., works lb 3.25 • —
Sabadilla seed, activated, calc., 50%, ground with lime, bgs lb. .48 • .70
Saccharin, calcium, fib dms. 1,000-lb lots, works lb 2.50 • —
Saccharin, USP gran. soluble, dms., 1,000-lb lots lb 1.50 • —
dms., smaller lots lb 1.60 • —
USP, powd. soluble dms., 1,000-lb lots lb. 1.55 • —
dms., smaller lots lb. 1.65 • —
USP, powd., insoluble, dms., 1,000-lb lots lb. 1.53 • —
dms., smaller lots lb. 1.63 • —
Safflower oil, indust. dms., New York, lb. .21 • .2230
tanks, Atl. coast lb. .19 • —
Edible, dms., same basis lb. .2560- .2660
tanks lb. .2360- —
Saffron, Mancha Superior, tins lb.19.50 • —
Safrol dms lb 65 • —
Sage, Dalmatian, bgs lb 40 • —
Greek, cns. lb 15 • —
Italian, cns lb 18 • —
Sage oil, clary, bots. lb.11.00 -12.00
Dalmatian, cns lb 2.85 3.25
Spanish, cns lb 1.25 1.75
Sal soda (see Soda, sal).
Salicylaldehyde, dms, c.l., t.l., f.o.b. plant, frt equald lb 1.23 • —
dms, t.c.l. same basis lb 1.25 • —
Salicylamide, 100-lb dms lb 1.05 • —
Salicylic acid, tech, fib dms., c.l., t.l., dlvd lb. 40½- —
fib dms, t.c.l. dlvd lb. 44¾- —
USP, cryst., 200-lb. fib dms., 1,000 lbs or more lb. .51¾- —
200-lb. fib. dms. less than 1,000 lbs lb. .54¾ —
100-lb. fib. dms., 1,000 lbs. or more lb. .53¾- —
100-lb. fib dms. less than 1,000 lbs lb. .56¾ —
USP, pwd., 100-lb. fib dms., 1,000 lbs or more lb. .58¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran. bbls, kgs lb 1.20 —
Powdered salol 25c per lb higher.
Salt rock paper bgs. c.l. 100 lbs 1.09 • —
Salt, table vacuum common, fine, paper bgs. c.l. 100 lbs 1.34 • —
Saltcake, dom. bulk, works, 100% Na_2SO_4 basis ton 28.00 • —
Saltpeter (see Potassium nitrate)
Sandalwood, E Indian, chips bgs., lb .55 .66
powd. fib dms lb .75 .76
Sandalwood oil, cns lb.27.00 -30.00
Sarcosine, tech. tanks, f.o.b., works, frt equald lb 1.03 —
lb No stocks.
Sassafras oil, artif., dms lb. .45 —
Nat., dom. dms lb 1.40 • —
Savory oil, cns lb 4.75 • —
Schaeffer's salt paste, dms., frt alld 100% basis lb. .85 • —
Powd. bgs. frt alld. 100% basis lb .95 • —
Scopolamine hydrobromide, USP, 10 oz. lots, bots oz.15.00 • —
Sebacic acid, CP, bgs. c.l. works, lb. .69½- —
bgs., t.c.l., works lb. 71½- —
Purified, bgs. c.l., works lb. .65½- —
bgs., t.c.l., works lb. .67½- —
Seidlitz mixture, fib dms. 5,000-lb. lots lb. .30½ —
fib dms., smaller lots lb. .31 .33
Selenium, powd., 99½%, dms., dlvd lb. 5.75 • —
Senega root, bls. lb. 2.65 • —
Senna leaves, Alexandria, whole and half, bls lb. .20 • .22
siftings lb. .16 • —
Tinneveley, No. 1, bls. lb. .26 • .30
No. 2, bls lb. .18 • —
No. 3, bls lb. .14 • —
pods, bls lb. .28 • —
powd. bbls., bxs lb .17 • —
Serpentaria root, bls lb. 7.00 • 7.50
Sesame oil, USP, dms., t.c.l lb .37 .38
Sesame seed, Colombian, bgs lb. .15½- —
Lebanese, hulled, bgs lb. .18 • —
Nicaraguan, hulled, bgs lb. .21 • —
nat., bgs. lb. .15 • —
Salvadorian, Nat. bgs lb. .16 • —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .46 • —
bbls., 1,500-lb. lots lb. .47 • —
Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb higher for all packages.
Shellac, bleached, refd., bgs., 1,200-lb. lots lb. .56 • —
bgs., less than 1,200-lb. lots lb. .57 • —
Shellac, orange, lemon No 1, bgs., 10-bg. lots lb. .35 • .36
lemon No. 2, bgs., 10-bg. lots, lb. .34 • .35
superfine, bgs., 10-lb. lots lb. .32 • .33
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 • —
dms., t.c.l., works gal. .48 • —
tanks, works gal. .25 • —
Sienna, pigment, burnt, paper bgs., l.c.l., works lb. .07¼- .19¾
Raw, paper bgs., l.c.l., works lb. .07½- .18
Silica, amorph., dry-grd. 325 mesh, bgs., c.l., works ton.25.00 —
bgs. t.c.l. works ex whse ton.45.00 -55.00
hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton.20.00 • —
bgs., t.c.l., works ton.25.00 • —
99½% 140 mesh bgs., c.l. works ton.15.00 • —
bgs., t.c.l. works ton.20.00 • —
Silicon tetrachloride, tech., dms., c.l., works lb. .20 • —
tanks, works lb. .15 • —
Silver bullion, ingots, cs., Troy oz. 1.01¾- —
Silver cyanide bots. 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots. 100-oz lots oz. .96¼- —
Silver nitrate, CP cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots. 250-500 oz. same basis, oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 • —
Snakeroot oil, Canada, cns lb.40.00 -43.00
Soapbark, crushed, bls. lb. .40 • —
Powd., bls. lb. .50 • —
Whole, bls. lb. .30 • —
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 • —
paper bgs., t.c.l., stock pts., 100 lbs. 3.00 4.77
bulk, c.l. works 100 lbs 1.60 —
Soda ash, light, 58%, paper bgs., c.l., works 100 lbs. 1.85 • —
paper bgs. t.c.l., stock pts. 100 lbs. 3.95 4.72
bulk, c.l. works 100 lbs 1.55 —
Soda, caustic, flake, 76%, dms., c.l., works, frt equald 100 lbs. 5.20 • —
liq. 50% sellers tanks works, dry basis 100 lbs. 2.90 • —
50% rayon type sellers tanks, works, dry basis 100 lbs. 2.90 • 3.00
Liq. 73%, sellers' tanks, works, dry basis 100 lbs. 3.00 • —
liq. 73% rayon type, sellers' tanks, works, dry basis lb. 3.00 • 3.10
solid 76% dms. c.l. works, 100 lbs. 4.80 • —
Soda, sal, conc. bgs. c.l. works, 100 lbs. 2.50 • —
bgs. smaller lots, works 100 lbs. 2.80 • —
Sodium acetate, anhyd., bgs., c.l., dlvd E lb. .14½- —
bgs., t.c.l., same basis lb. .16½- —
NF, 60% gran. dms. c.l. works, lb. .15½- —
dms. t.c.l. works lb. .17½- —
Sodium alginate, NF, white powd., dom. 300 lbs or more lb. 1.02 • —
Sodium p-aminosalicylate dms., 100-lb lots or more, frt. adjusted lb. 1.90 • —
Sodium antimoniate bgs. c.l. dlvd, E lb. .27½- —
bgs. t.c.l. dlvd & lb. .29 • —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 • —
ton lots or more same basis, lb. .23½- —
Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis lb. .19 • —
100-500 dms. same basis lb. .20 • —
Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 5.60 • —
less than 100-kilos kilo. 5.85 • —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 • —
dms., t.c.l. same basis lb. .39 • —
USP, 100-lb. dms., ton lots, same basis lb. .43 • —
100-lb. dms., 1,000-lb lots, same basis lb. .45 • —
Sodium bicarbonate USP, gran., bgs., c.l. works 100 lbs 2.95 • —
bgs. t.c.l. works 100 lbs 3.85 • —
USP powd., bgs. c.l., works, 100 lbs. 2.55 • —
bgs. t.c.l. works 100 lbs. 3.45 • —
Sodium bichromate gran., bgs., c.l., t.l., works lb. .13 • —
bgs. t.c.l. works lb. .13½- .14¾
Sodium bichromate in dms ¾c. per lb higher
Sodium bifluoride, fib. dms., c.l., works, frt equald lb. .19½- —
fib. dms., t.c.l., same basis lb. .2025- —
Sodium bisulfate, bulk c.l. works, 100 lbs 2.00 —
dms c.l., frt. equald 100 lbs 3.00 3.60
dms. t.c.l. frt equald 100 lbs 3.50 4.10
Sodium bisulfite anhyd., bgs. c.l., works 100 lbs 5.00 • —
bgs., t.c.l., works 100 lbs 5.45 • —
Soln., 35° bbls. c.l., works 100 lbs 1.70 • —
bbls. t.c.l. works 100 lbs 2.20 • —
Sodium borate (see Borax)
Sodium borohydride powd., dms., c.l., works lb. 8.00 • —
dms., t.c.l., works lb.11.75 -14.00
stabilized water soln., 12% $NaBH_4$, 100% basis, tanks, works lb. 7.50 • —
dms., same basis lb.11.50 -13.00
Pelletized sodium borohydride $1 per lb higher in 1,000-lb lots.
Sodium bromide USP gran dms., works lb. .40 • —
Sodium carbonate, cryst. monohydrated (see Soda, sal)
Sodium carbonate, monohydrated, bgs., l.c.l. works 100 lbs 3.50 • —
bgs., c.l. works 100 lbs 3.10 • —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb dms., c.l. works lb. .09 —
dms. t.c.l., works lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb higher
Sodium chloride, tech (see Salt)
Sodium chloride, USP gran. bgs. lb. .05 • —
Sodium chlorite, tech. dms., c.l., works lb. .58 • —
dms. 20-dm lots or more works lb. .66 • —
dms., smaller lots, works lb. 70 .73
Sodium chloroacetate, tech. dms., c.l. works lb. .27 —
dms. t.c.l., works lb. .28 —
Sodium chromate, anhyd. fib dms., c.l. t.l., works lb. .14¾ —
fib dms t.c.l. works lb. .15¼- .16½
Tetrahydrate, bgs., c.l., t.l., works, lb. .1015- —
bgs., t.c.l. lb. .1065- .1190
Sodium citrate, anhyd., 200-lb. dm., f.o.b., works E lb. .60½- —
NF VIII, gran, bgs., c.l., same basis lb. .56 • —
USP XIV, gran., bgs., c.l., same basis lb. .26½- —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 • —
dms., smaller lots, works lb. .90 • 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., dlvd., E. of Rockies, 20,000-lb lots lb. .183 • —
dms., same basis, 5,000 to 19,999-lb. lots lb. .203 • —
dms., same basis, 2,000 to 4,900-lb. lots lb. .208 • —
dms., same basis, 1,999-lb. lots and under lb. .218 • —
Sodium cyclamate, 100-lb dm., f.o.b. works lb. 1.95 • —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 • —
250-lb dms. t.c.l., works lb. 18¾- —
Tech., 33-35% acetic acid, dms., t.c.l., works lb. .15 • —
250-lb. dms., t.c.l., works lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln. dms., c.l., t.l., frt. alld., 100% basis lb. .42 • —
dms., t.c.l., t.t.l., same basis lb. .47 • .52
tanks, same basis lb. .38 • —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs. smaller lots lb. .14¾- —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., t.c.l., works, frt. equald lb. .1465- —
Sodium formate, bgs., c.l., works, 100 lbs. 7.05 • —
bgs., t.c.l., ex whse 100 lbs. 8.65 • —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 • —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 • —
Tech., bgs., c.l., t.l., same basis lb. .29½- —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 • 2.50
25% soln in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 • —
dms., 50-99 lbs. same basis lb. 1.77 • —
dms., 100-999 lbs., same basis lb. 1.20 • —
Sodium hydride, dms., 1,000 lbs. or more same basis lb. .95 —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite dms. c.l., frt. alld lb. 23½ —
dms. t.c.l. frt alld. lb. 25¼- —
Sodium hydroxide, NF, pellets, 100-lb dms., 1 to 190-dm. lots, lb. 23½- .28
Sodium hydroxide, tech (see Soda, caustic).
Sodium hypophosphite, NF dms. 1,000-lb. lots lb. .99 • —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb dms., f.o.b. works lb. 2.13 • —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., t.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 • —
l.c.l., bgs., works 100 lbs. 4.75 • 5.25
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate, octahydrate, gran. bgs. c.l. works ton 210.00 • —
bgs., ton lots, ex whse 100 lbs. 8.30 • —
bags, smaller lots, ex whse, 100 lbs. 9.61 -11.61
Tetrahydrate, bgs., c.l., works ton.210.00 • —
Sodium metallic, bricks, c.l., works, lb. .21 —
Fused, 18,000-lb lots or more, works lb. .19½- —
tanks, works lb. .17 • —
Sodium metaliuate, bbls., frt. alld, lb. .62 • —
Sodium metaphosphate, bgs., c.l., f.o.b shipping pt 100 lbs.11.10 • —
bgs., t.c.l., same basis 100 lbs.11.85 • —
dms., c.l., same basis 100 lbs.11.70 • —
dms., t.c.l. same basis 100 lbs.12.45 • —
Sodium metasilicate anhyd., bgs., c.l., works 100 lbs 5.70 • —
bgs., 6,000-19,900 lb. lots, works 100 lbs 6.05 • —
dms., c.l., works 100 lbs. 6.20 • —
dms., t.c.l., works 100 lbs 6.55 • —
Pentahydrate, bgs., c.l., works 100 lbs. 4.45 • —
bgs., t.c.l., works 100 lbs 4.80 • 6.75
dms., t.c.l., works 100 lbs 4.95 • —
dms., t.c.l., works 100 lbs 5.30 • 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. 1.02 • 1.21
Cryst., dms., works, frt. alld lb. .84 • .86
Sodium monoglutamate (see Monosodium glutamate)
Sodium monohydrate (see Sodium carbonate monohydrated)
Sodium naphthionate, bbls. lb. .77 • —
Sodium nitrate, dom., crude, bgs., c.l. works ton 48.00 • —
bulk, c.l., works ton 44.00 • —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton.48.00 • —
bulk c.l., same basis ton.44.00 • —
Sodium nitrite, USP, bbls., c.l. works, frt. equald 100 lbs. 9.40 • —
bbls., t.c.l., same basis 100 lbs.11.40 • —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 • —
dms., t.c.l., works 100 lbs 7.05 • 7.65
Hydrated, flake, bbls., c.l., works 100 lbs. 5.65 —
bbls. t.c.l. works 100 lbs 7.60 • 7.90
Sodium oxalate, 88% bgs., works 100 lbs.12.35 • —
99% bgs. works 100 lbs.15.40 • —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate)
Sodium para aminosalicylate (see Sodium p-aminosalicylate)
Sodium pentachlorophenate, briquets, dms., c.l., works, frt equald lb. .26 —
dms. t.c.l. same basis lb. .27½- .34
Pellets, dms. c.l. same basis lb. .26 • —
dms. c.l. same basis lb. .27½- .34
Powd., dms., c.l. same basis lb. .25 • —
dms. t.c.l. same basis lb. 26½- .33
Sodium pentaharbital, USP, dms., 100 lbs or more lb. 6.00 • —
Sodium perborate, NF, tech., bgs., c.l., works lb. .137 • —
bgs., t.c.l., works lb. .152 • .215
Sodium peroxide, dms. c.l., t.l., dlvd E of Miss lb. .21½- —
dms., t.c.l. same basis lb. .22 • .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 • —
Sodium phenosulfonate, USP, IX., gran., dms lb. .52 • .53
NF powd. dms lb. .55 • .56
Sodium phosphate, dibasic, anhyd., bgs c.l. frt equald 100 lbs 8.10 —
bgs. t.c.l. same basis 100 lbs 8.50 9.55
Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt. equald. 100 lbs 4.75 —
bgs., t.c.l., frt. equald 100 lbs 5.15 5.90

Sodium phosphate, duohydrate, bgs., c.l., frt. equald..100 lbs. 7.75 - —
bgs., l.c.l., same basis 100 lbs. 8.25 - —
Monobasic, anhyd bgs., c.l., frt. equald 100 lbs. 9.15 - —
bgs., l.c.l., same basis 100 lbs. 9.55 -10.15
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.15 - —
bgs., l.c.l., frt. equald 100 lbs. 9.60 -10.20

Sodium phosphate tn dms. 60c. to 80c. higher than bgs

Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 - .20½

Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —

Sodium propionate, any quantity, dms., dlvd E. of Rockies. lb. .34½- —

Prices W of Rockies 3c. per lb. more.

Sodium prussiate yellow (see Sodium ferrocyanide)

Sodium pyrophosphate, acid, bgs., c.l., works, frt equald. 100 lbs.11.25 - —
bgs., l.c.l., same basis 100 lbs.12.00 -12.50
ferric, dms., c.l., t.l., works..lb. .36 - —
dms., l.c.l. works. lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works. frt. equald 100 lbs. 7.38 - —
bgs., l.c.l., same basis 100 lbs. 8.13 - —
bulk, hopper cars, same basis. 100 lbs. 6.83 - —

Sodium salicylate USP dms., 1,000-lbs or more lb. .78½- —
dms., less than 1,000 lbs. dms.lb. .81½- —

Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. zone 4 100 lbs. 5.35 - 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La. and Miss. south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l. works 100 lbs. 5.70 - —
dms. c.l., t.l., works 100 lbs. 6.20 - —
Hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb lots, works. 100 lbs. 5.85 - —

Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works 100 lbs. 1.20 - —
47° Be. 1:2.9, turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 - —
52° Be. 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 - —

Sodium silicate, liq., 52° Be. 1:2.4, turbid, dms., l.c.l., works. 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1.3.2, bgs., works ton.67.50 - —

Sodium silicofluoride, bgs., c.l., works, frt, equald..lb. .07 - —
bgs., l.c.l., works, frt, equald...lb. .0775- —

Sodium silicofluoride in dms., 0.4c. per lb. higher.

Sodium stannate, dms., works, frt. alld. E. lb. .736 - .892

Sodium sulfa drugs (see Sulfa name).

Sodium sulfanilate, bbls., works lb. .23 - —

Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton.56.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton.38.00 - —
bulk, c.l., works..ton.34.00 - —
USP, cryst., fib dms. lb. .17½- .18

Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 - —

Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —

Sodium sulfite, anhyd., tech., bgs., c.l., works 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —
Powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs., l.c.l. same basis 100 lbs. 7.95 - —

Sodium sulfocyanide, CP (see Sodium thiocyanate).

Sodium tetraborate (see Borax).

Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald lb. .04¼- —
dms., l.c.l., same basis lb. .05½- —

Sodium thiocyanate, purified, cryst., 250-lb. dms lb. .90 - —
Tech., anhyd., dms., 1 ton lots or more, works lb. .367 - —
dms., less than ton lots, works lb. .387 - —

Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Tech., anhyd. 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb. bgs., l.c.l., t.t.l., frt. equald 100 lbs. 8.15 - —

Sodium thiosulfate, photograde, 64-lb. bgs., c.l., t.l., frt. equald. lb. .0775- —
64-lb. bgs., l.c.l., t.t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald..100 lbs. 4.95 - —
100-lb. bgs., l.c.l., t.t.l., frt. equald .100 lbs. 5.20 - —

Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14¼- —
ctns., 1-ton lots or less, works. lb. .14¼- —

Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .38 - —
50-lb. dms., c.l., frt. alld. E. lb. .35½- —
10-lb. cns., c.l., frt. alld. E. lb. .42 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¼c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald..100 lbs. 7.73 - —
bgs., l.c.l., same basis 100 lbs. 8.48 - —
bulk, hopper cars, same basis. 100 lbs. 7.18 - —

Sodium tungstate, tech., kgs., dlvd. E. lb. 1.32 - —

Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —

Sodium-carboxymethyl cellulose (see CMC).

Sodium-cinchophen (see Cinchophen-sodium).

Sodium - formaldehyde sulfoxylate, dms., t.l., dlvd. lb. .22½- —
dms., l.t.l., same basis lb. .23 - —

Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —

Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 - .35½

Petroleum, straight, aromatic, 310°-380F. b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York.gal. .29 - —
Houston, Texas gal. .29 - —
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York. gal. .30 - —
Houston, Texas gal. .30 - —

Solvent naphtha, partial aromatic, 211°265°F b.r., 31°C m.a.p., tankcars, New Jersey and New York. gal. .235 - —
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York gal. .275 - —
319°-380°F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322°-395°F b.r., 28°C. m.a.p., tankcars, New Jersey and New York gal. .28 - —

Sorbitan monostearate, fib dms., 20,000-lb. lots, works lb. .33½- —
10,000 to 20,000-lb. lots, works. lb. .35½- —
fib. dms., smaller lots, works lb. .38½- .40½

Sorbitan tristearate, fib. dms., 20,000-lb. lots, works lb. .34 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41

Sorbitol, USP, reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .19 - —
tanks, works lb. .16¼- —
powd., dms., c.l., works lb. .38½- —
dms., 10,000 to 20,000 lb. lots, works lb. .40½- —

Sorbitol, soln., comi., aqueous, dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27 - —
tanks, works lb. .23½- —

Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works lb. .23¼- .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 - —
bgs., l.c.l., works lb. .20½- .29½

Soybean meal, 44%, bulk, unrestricted, Decatur..ton.59.50 - —

Soybean oil, crude, tanks, Decatur, lb. .10¾- —

Foots, soapstock acid 95%, tanks, New York..lb. .06 - —

Alkali, refd., dms. lb. .1487- .15½
tanks lb. .12⅞- —
Clarified dms. lb. .1437- .1458
tanks lb. .12⅜- —
Refd., salad, dms. lb. .15½- .15¼
tanks lb. .13⅛- —

Soybean oil acids, dbl. dist., dms., lb. .17¼- .18½
tanks lb. .14¾- —
S. D., dms. lb. .16 - .18½
tanks lb. .13½- —

Sparteine sulfate, cns., 100 oz. or more oz. .80 - —

Spearmint leaves, dom., bls lb 75 - —

Spearmint oil, NF, dms. lb. 3.50 - 3.75

Sperm oil, bleached winter, 45°, dms. lb. .1750- .1850
tanks lb. .1550- —
Nat., winter, 45°, dms. lb. .1630- .1730
tanks lb .1450- —

Spermaceti wax, blocks, cs. lb. .32 .33
cakes, cs. lb .33 .34

Spruce oil, cns., dms. lb 2.10 3.50

Squill, white, bls. lb. .16 .18
Powd., bbls., bxs. lb. .17 .20

St. John's bread, edible, bls lb. .17 - .20

Stannic chloride, anhyd., dms., works lb. .902 - .904

Stannous chloride, anhyd., dms lb. 1.123 - 1.378

Stannous chloride, hyd., crystal, 800 lbs. or more..lb. 956875- —

Stannous oxide, dms., dlvd. lb. 1.673 - 1.803

Stannous sulfate, works lb. 1.211 - 1.251

Star root (see Helonias root).

Stargrass root (see Aletris root.)

Stavesacre seed, bgs. lb. .60 .61

Stearic acid, double pressed, bgs. lb. .16¾- .19¼
Single-pressed, bgs. lb. .16¼- .18¾
Triple-pressed, bgs. lb. .18½- .21

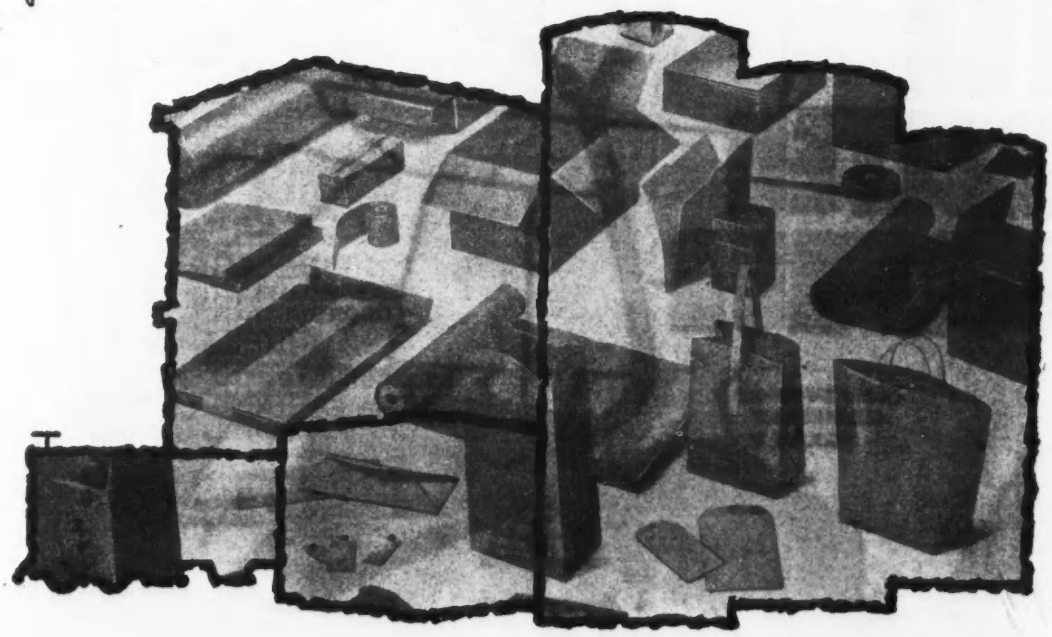
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, Houston gal. .1475- —
tanks, group 3 gal. .12875- —

Stramonium leaves, bgs. lb. .15 - .30

Streptomycin sulfate, bulk gram. .028 - .03

WEST END

advance planning OF EXPANDED SALT CAKE PRODUCTION ANTICIPATES INDUSTRY'S GROWING NEEDS



WEST END demonstrates its complete reliability as a major source by the continuing enlargement of its production facilities devoted to the manufacture of highest quality salt cake as a prime product. Independent of other product production and located at the site of vast natural raw material supply, West End is solidly qualified to handle the complete requirements of customers dependably, economically and efficiently.

Stauffer CHEMICALS

WEST END CHEMICAL COMPANY • DIVISION OF STAUFFER CHEMICAL COMPANY

636 CALIFORNIA STREET, SAN FRANCISCO, CALIFORNIA • PLANT: WESTEND, CALIFORNIA

Strontium Bromide—Terpineol

Strontium bromide, NF, cryst., gran., 150-lb. dm., frt. equald lb. 1.00 • —
Strontium carbonate, pure, dms., 5-ton lots or more, works lb. .35 • —
dms. 1-ton lots, works lb. .37 • —
Tech., dms., works lb. .19 • —
Strontium chromate, fib dms., dlvd. lb. .48 • —
Strontium iodide, jars, 25-lb. lots lb. 3.57 • —
Strontium nitrate, bgs., c.l., works. 100 lbs.11.00 • —
bgs., l.c.l., works 100 lbs.12.00 • —
Strontium salicylate, NF, dms lb. 1.88 • —
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works. ton.56.70 -66.15
Strophanthin G (see Quabain, USP).
Strophanthin K bots. oz.25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 2.50 • 3.00
Styrax gum USP cs. lb. 4.50 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd lb. .17 • —
dms., l.c.l., same basis lb. .19 • —
tanks, frt. equald. lb. .132 • —
Tech., 99.2%, dms., c.l., dlvd. lb. .15 • —
dms., l.c.l., same basis lb. .17 • —
tanks, frt. equald lb. .1103- —
Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.

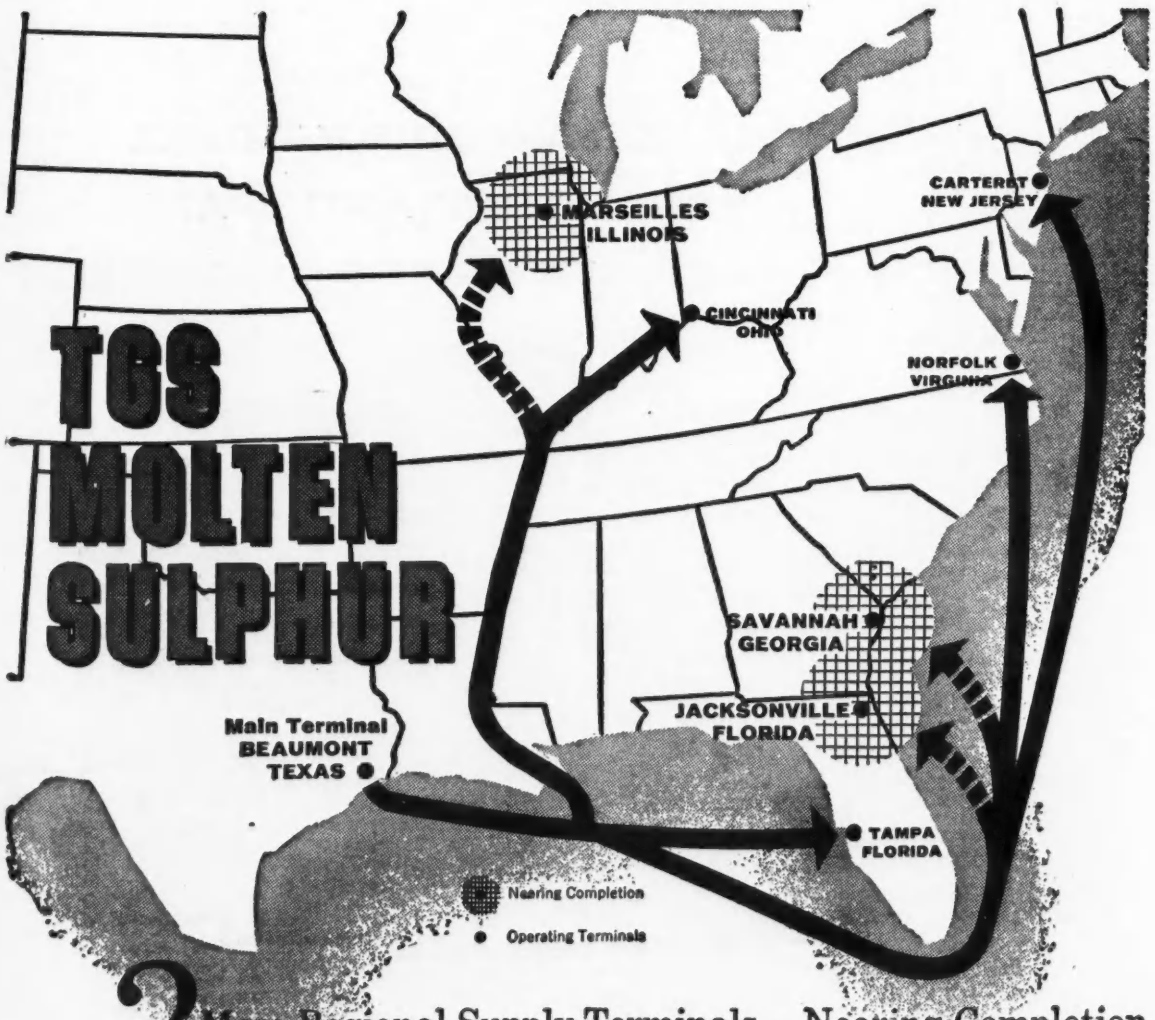
Styrolyl acetate, bots. lb. 1.02 • 1.10
Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 • —
dms., l.t.l., same basis lb. .63 • .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 • —
dms., l.c.l., same basis lb. .52 • —
Sucrose, refd., white, bgs., refy E. lb. .0915- —
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd lb. .33½- —
dms., l.t.l., same basis lb. .35 • —
tanks, same basis lb. .31 • —
100%, t.l., dms., dlvd lb. .35½- —
l.t.l., dms., same basis lb. .37 • —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 • —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 • .65
80-lb ctns., spot lb. .65 • .75
Sulfabenzamide, dms. kilo. 8.80 • 9.90
Sulfabenzamide-sodium, dms. kilo. 9.00 -10.10
Sulfacetamide, USP, fib dms kilo. 6.61 • 6.83
Sulfacetamide-sodium, USP, fib. dms kilo. 8.18 • 9.25
Sulfadiazine, USP, microcrystals, dms kilo.23.35 -24.45
USP, powd., dms. kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo.24.80 -25.90
Sulfaguanidine, NF X, dms kilo. 5.50 6.60
Sulfamerazine, USP, microcrystals, dms. kilo.23.50 • —

Sulfamerazine-sodium, USP, powd., dms kilo.24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo.19.63 -20.75
USP XV, powd., dms. kilo.18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs.16.00 • —
dms., l.c.l., t.l., works 100 lbs.17.50 18.50
Gran., dms., c.l., t.l., works. 100 lbs.14.75 • —
dms., l.c.l., t.l., works 100 lbs.16.25 -17.25
Sulfanilamide, NF, reg., 1,000 lb., fib. dms., frt. equald lb. 1.75 • —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 • —
Sulfanilamide quinoxaline, veterinary, dms kilo.16.28 • —
Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 • —
dms., l.c.l., frt. alld lb. .23 • —
Sulfapyridine, USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo.16.55 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 • 6.90
NF X, powd., dms. kilo. 5.50 • 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 • —
Sulfur, comi., flour, bgs., mines. 100 lbs. 2.35 • —
bbls., mines 100 lbs. 3.30 • —
lump, bgs., mines 100 lbs. 2.25 • —
bbls., mines 100 lbs. 2.80 • —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton.23.50 • —
export, f.o.b. vessels, Gulf ports. long-ton.25.00 • —
US and Canada, f.o.b. vessels Gulf ports long-ton.25.00 • —
Domestic dark sulfur prices are $1 per long-ton lower.

Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton.24.00 • —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 • —
bbls., mines 100 lbs. 7.00 • —
flour, light, bgs., mines 100 lbs. 5.25 • —
bbls., mines 100 lbs. 6.25 • —
Sulfur, refd., lump, bgs., mines 100 lbs. 4.95 • —
rolls, bgs., mines 100 lbs. 5.50 • —
bbls., mines 100 lbs. 6.25 • —
salt block, bgs., mines 100 lbs. 4.65 • —
virgin block, bbls., mines 100 lbs. 4.70 • —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs. 2.45 • —
bbls., mines 100 lbs. 3.70 • —
98-100%, pashing through mesh, bgs., mines 100 lbs. 2.55 • —
bbls., mines 100 lbs. 3.80 • —
Sulfur, refd., bgs., mines 100 lbs. 4.90 • —
bbls., mines 100 lbs. 6.05 • —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 • —
bbls., mines 100 lbs. 4.00 • —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½- —
ret. dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq., comi., cyls., works, frt. equald lb. .10 • .13
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 • —
refrigeration, cyls., dlvd lb. .33 • —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05½- —
dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 • —
cbys., l.c.l., works 100 lbs. 2.30 • —
tanks, works ton.18.60 • —
66° Be, cbys., c.l., works 100 lbs. 2.25 • —
cbys., l.c.l., works 100 lbs. 2.55 • 3.35
tanks, works ton.22.35 • —
98%, tanks, works, East ton.23.50 • —
99%, tanks, works, East ton.23.70 • —
100%, tanks, works, East ton.23.95 • —
Sulfuric acid, California works, tanks ton.26.45 • —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
Sulfuric acid, CP, NF, 5-pt. bots., extra, cs., c.l., works, frt. alld. lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 • —
40%, tanks, works ton.29.00 • —
65%, tanks works ton.39.50 • —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 • .93
bulk, c.l., Carteret, N. J. unit-ton. .90 • .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 • —
bulk, f.o.b. vessel at Fla. unit-ton. 1.05 • —
Sweet birch oil, USP, northern, cns. lb. 4.00 • 9.50
USP, southern, cns. lb. 2.00 • 3.05

T

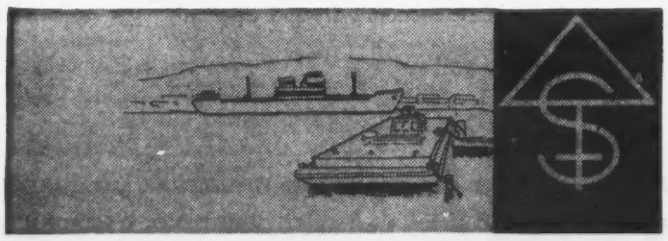
2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 • —
dms., l.c.l., same basis lb. 1.25 • —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 • —
dms., l.c.l., works lb. 1.29 • —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.28.00 • —
bgs., l.c.l., works ton.31.00 -36.00
Dom., 99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 • —
bgs., l.c.l., works ton.34.00 • —
99.95%, 400 mesh, micronized, bgs., c.l. works ton.38.00 • —
625 mesh, micronized, bgs., c.l., works ton.80.00 • —
Dom., ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
ord Vermont, off-color, grd., bgs., c.l., works ton.19.40 • —
bgs., l.c.l., works ton.37.00 • —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 35.00
tanks, works lb. .02⅞- .03¼
Tall oil, crude, tanks, works lb. .03¼- .03½
Acid, refined dms., c.l., works lb. .08¾- .10
tanks, works lb. .07½- .08¾
Dist., depending on grade, dms., c.l., works lb. .08¾- .09¾
tanks, works lb. .07½- .08½
Tall oil fatty acids, less 2% rosin acid, dms., c.l., works lb. .09¾- .11
tanks, works lb. .07¾- .09
2-6% rosin acid, dms., c.l., works. lb. .08½- .09
tanks, works lb. .06½- .07
Tallow, edible, tanks, dlvd. lb. .08¼- —
Inedible, fancy bleachable, tanks, lb. .05¾- .05⅞
fancy, guarant'd, bulk, f.o.b., steamer lb. .06⅜- .06½
dms., f.a.s. lb. .07½- —
tanks, dlvd. lb. .06 - .06¼
No. 1, dlvd. lb. .05¼- .05¼
Prime, tanks, dlvd. lb. .05½- .05⅝
special, tanks, dlvd. lb. .05⅝- .05½
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .09¼
50%, bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .13¼- .15¾
tanks lb. .10¾- —
Hydrogenated, dms. lb. .15½- .18
Tallow oil, acidless, dms., c.l. lb. .14 • —
dms., l.c.l. lb. .16 • —
tanks lb. .12½- —
Tangerine oil, Florida, dms. lb. 4.25 • —
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 4.75 • 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 • —
bbls., smaller lots lb. 2.06 • 2.07
powd., bbls., 1,000-lb. lots lb. 1.95 • —
bbls., smaller lots lb. 1.96 • 1.99
Tech., dms. lb. 1.05 • —
Tansy oil, dms. lb. 6.60 • 8.00
Tar acid oil, 15-18%, dms., c.l., dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
25-28%, dms., c.l., frt. equald gal. .53½- —
basis gal. .60 • —
dms., l.c.l., same basis gal. .62 • —
tanks, same basis gal. .50 • —
30-33%, dms., c.l., same basis gal. .73 • —
dms., l.c.l., same basis gal. .77 • —
tanks, same basis gal. .65 • —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 • —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 • —
bgs., smaller lots, same basis lb. .47 • —
Terpine hydrate, NF, cryst., powd., 100-lb fib. dms lb. .70 • —
Terpineol, extra, dms lb. .50 • .60
Prime, dms. lb. .40 • .50



3 More Regional Supply Terminals ... Nearing Completion

Three additional major sulphur-consuming areas will soon be served with short-haul deliveries of TGS Molten Sulphur. As a matter of fact, at Jacksonville the service is even broader for we will also be stockpiling solid sulphur. Facilities are being set up to 'vat' part of the molten sulphur as it comes in by tanker from Beaumont. We're already providing this dual service at Norfolk.

These three terminals will be ready early in 1962. That will make a total of seven supplying TGS Sulphur to major sulphur-consuming areas with short-haul deliveries.

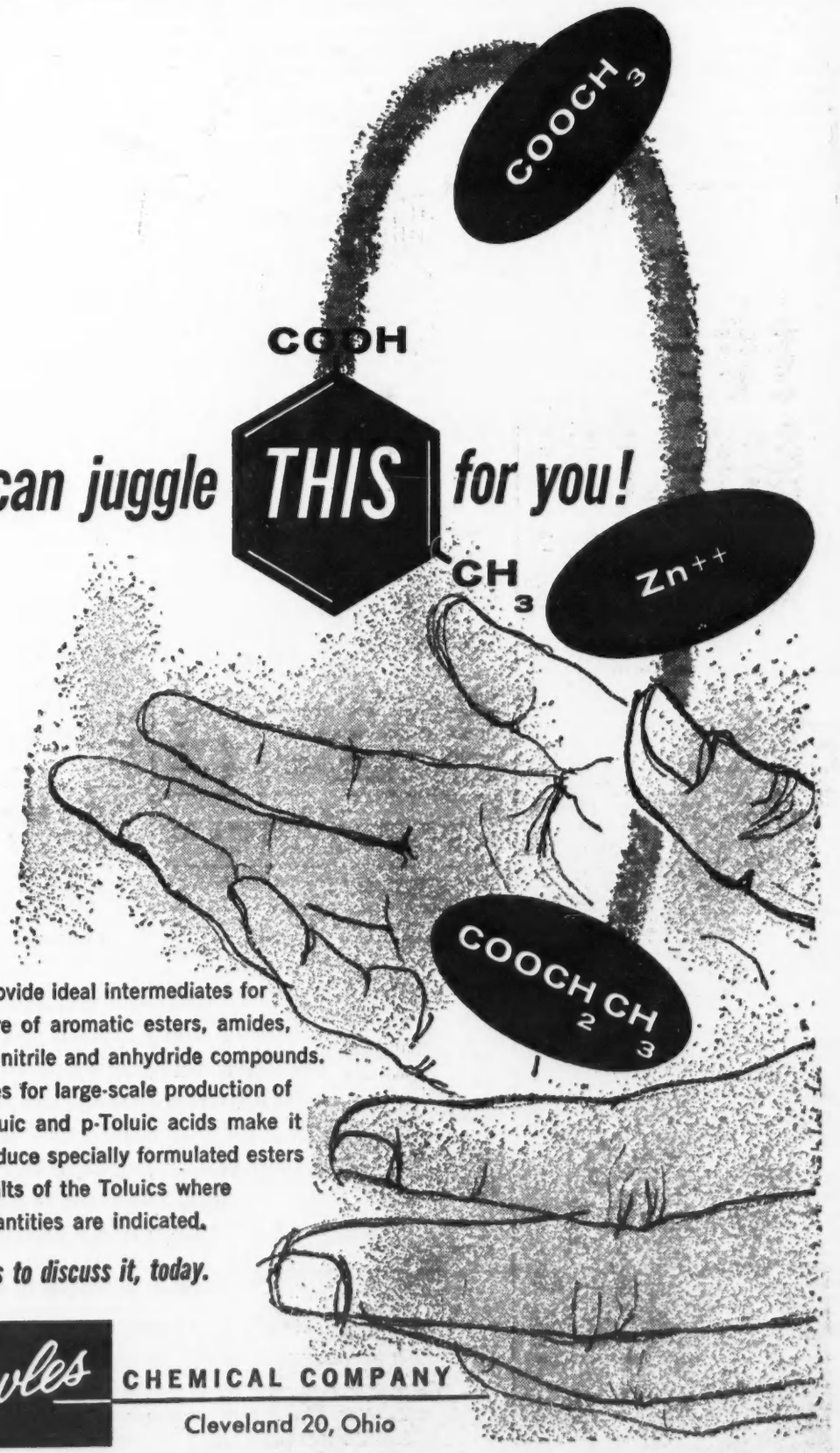


TEXAS GULF SULPHUR COMPANY
75 East 45th Street, New York 17, N. Y.
811 Rusk Avenue, Houston 2, Texas
Sulphur Producing Units: Newgulf, Texas • Moss Bluff, Texas
Fannett, Texas • Spindletop, Texas
Worland, Wyoming • Okotoks, Alberta, Canada

Terpinyl acetate, extra, cns., dms.	lb.	.84	.75
Prime, dms.	lb.	.53	.56
Terpinyl propionate, dms.	lb.	1.68	1.70
Testosterone, USP, bots.	gram.	No prices.	
Testosterone propionate, USP, bots.	gram.	No prices.	
Tetrachloroethane, dms., works	lb.	.14½	—
Tetrasodium pyrophosphate (see Sodium pyrophosphate).			
Tetrachloroethylene, tech. (see Perchloroethylene).			
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works	lb.	.20½	—
dms., l.c.l., works	lb.	.22	.23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E	lb.	.65	—
dms., l.c.l., dlvd. E	lb.	.66½	—
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald	lb.	.75	—
Tetraethylenepentamine, dms., c.l., dlvd. E	lb.	.53½	—
dms., l.c.l., dlvd. E	lb.	.55	—
tanks, dlvd. E	lb.	.51	—
Tetraethylthiuram disulfide, tech., dms., frt. alld	lb.	1.04	—
Tetrahydrofuran, dms., c.l., t.l., works	lb.	.36½	—
dms., l.c.l., or t.t.l., works	lb.	.37	—
tanks, works	lb.	.35	—
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn.	lb.	.25½	—
dms., l.c.l., Memphis, Tenn.	lb.	.26½	—
dms., c.l., t.l., Newark, N.J.	lb.	.27½	—
Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J.	lb.	.28½	—
tanks, dlvd. E, of Denver	lb.	.25	—
tanks, dlvd. W. of Denver	lb.	.26	—
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E	lb.	.39	—
l.c.l., t.t.l., same basis	lb.	.41	—
Tetrapotassium phosphate (see potassium phosphate).			
Thallium metal, dlvd	lb.	7.50	10.00
Thallium sulfate, 99%, bots., dlvd.	lb.	5.00	10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works	lb.	4.10	4.15
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works	lb.	6.45	—
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works.	lb.	3.80	—
Theophyline, USP, anhyd., 100-lb. dms., frt. alld	lb.	3.65	—
Thiamine hydrochloride, USP, fib. dms., frt. alld	kilo.	27.00	—
Thiamine mononitrate, USP, fib. dms., frt. alld	kilo.	27.00	—
Thiocarbanilide, dms., ton lots	lb.	.74	—
dms., less ton lots	lb.	.76	—
Thiodiphenylamine (see Phenothiazine).			
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works	lb.	5.20	—
Tungstated, PTMA, kgs., works	lb.	6.20	—
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis	lb.	1.15	—
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works	lb.	4.00	—
Thiourea, tech., bgs., t.l., dlvd. Metropolitan area	lb.	.28½	—
bgs., ton lots, same basis	lb.	.31½	—
bgs., less than ton lots, same basis	lb.	.32½	—
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works	lb.	3.50	—
dl-Threonine, dms., 25 kilos, works,	kilo.	115.00	—
Thyme leaves, French, tripie sifted extra, bgs	lb.	.25	—
Spanish, extra, bgs	lb.	.14	—
reg., bgs.	lb.	.08	—
Thyme oil, NF, red, cns., dms.	lb.	3.25	3.60
NF, white, cns	lb.	3.50	3.95
Tech., white, cns.	lb.	.80	1.10
Thymol, fib dms., 25-lbs., f.o.b. works	lb.	2.45	—
Thymol iodide, NF, dms., 100-lbs. f.o.b. works	lb.	7.30	—
Timbo root (see Cube root)			
Tin chloride (see Stannous chloride, anhyd.).			
Tin crystals (see Stannous chloride, hydrous)			
Tin metal (Straits)	lb.	1.21	—
Tin oxide (see Stannic oxide).			
Tin sulfate (see Stannous sulfate).			
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).			
Titanium dioxide, anatase, all grades, bgs., 30-ton c.l. min. frt. alld.	lb.	.23	—
20-ton, c.l., same basis	lb.	.25½	—
bgs., l.c.l., same basis	lb.	.26	.26½
rutile, all grades, bgs., 30-ton c.l. min., frt. alld.	lb.	.27	—
20-ton, c.l., same basis	lb.	.27½	—
bgs., l.c.l., same basis	lb.	.28	.28½
Titanium dioxide, metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.	ton.	180.00	—
bgs., 5-ton lots, Niagara Falls, N.Y.	ton.	205.00	—
bgs., ton lots, same basis	ton.	215.00	—
Milled metallurgical titanium dioxide $7.50 per ton higher.			
Titanium dioxide-calcium pigment, 30% Ti O_2, reg. bgs., 30-ton c.l., f.o.b.	lb.	.09¼	—
20-ton, c.l., works	lb.	.09¾	—
bgs., l.c.l., works	lb.	.09⅞	—
50% Ti O_2, high-tinting, dms., 30-ton c.l.	lb.	.14½	—
20-ton, c.l., works	lb.	.14⅝	—
dms., l.c.l.	lb.	.14⅞	—
Titanium hydride, powd., dms., works	lb.	8.10	9.00
Titanium tetrachloride, tech., dms., c.l., works	lb.	.26	—
dms., l.c.l., works	lb.	.27½	.29
tanks, works	lb.	.20	—
Tobias acid, dms., c.l., t.l., 20,000 min., f.o.b. plant, frt. alld. E	lb.	.81	—
dms., l.c.l., l.t.l., 5,000-lbs.-19,999 lbs., same basis	lb.	.81½	—
dms., l.c.l., l.t.l., less than 5,000 lbs., same basis	lb.	.84	—
For west coast delivery add 2c. per lb.			
d-a-Tocopherols, NF, mixer, conc., pure basis, bots.	kilo.	50.30	—
d-a-Tocopheryl acetate, NF, conc., pure basis, bots.	kilo.	91.80	—
d-a-Tocopheryl acid succinate, cryst., bots.	kilo.	81.70	—
dl-a-Tocopherol, bots.	kilo.	74.25	100.00
dl-a-Tocophheryl acetate, bots.	kilo.	67.50	91.00
25% dry, powd., bots.	kilo.	16.88	18.38
33⅓% dry, powd., bots.	kilo.	22.50	24.00
o-Tolidine base, dry, kgs., 100% basis	lb.	1.55	—
Paste, kgs., 100% basis	lb.	1.50	—

TOLUOL
Toluol quotations, both coaltar and petroleum, may be found under Toluene.

Tolu balsam, cns.	lb.	4.00	4.50
Toluene, coaltar, indust., or nitration, tanks, dlvd. E of Rockies	gal.	.25	.25½
Petroleum, indust., tanks, dlvd	gal.	.25	.25½
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	.80	—
dms., l.t.l., same basis	lb.	.83	—
Toluenesulfonic acid, 65-gal. dms., t.l., frt. alld	lb.	.16	—
1,000-lb. or more, same basis	lb.	.18	—
less than 1,000-lb., same basis	lb.	.23	—
tanks, same basis	lb.	.14	—
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.			
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l	lb.	.90	—
dms., 125 lbs. to t.l.	lb.	1.00	—
m-Toluidine, dms., c.l., works, frt. alld	lb.	.83	—
dms., l.c.l., same basis	lb.	.84	—
tanks, same basis	lb.	.83	—
o-Toluidine, dms., c.l., works, frt. alld.	lb.	.26	—
dms., l.c.l., same basis	lb.	.27	—
tanks, same basis	lb.	.24	—
p-Toluidine, tech., flake, dms., frt. alld	lb.	.50	—
Cast, dms., frt. alld.	lb.	.45	—
p-Toluidine-m-sulfonic acid, dms., works	lb.	.93	1.04
Toluidine red toner, deep shades, kgs., works	lb.	1.70	—
Light shades, kgs, works	lb.	1.70	—
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld	lb.	1.10	—
Tonka beans, Angostura, prime f.o.b., N.Y.	lb.	1.35	1.50
Brazilian, Surinam, cs., same basis	lb.	1.00	1.10
Totaquine, 100-oz. lots, cns.	oz.	.43	—
Toxaphene, dms., c.l., t.l., works.	lb.	.22	—
dms., l.c.l., l.t.l., works	lb.	.28	—
Tragacanth gum, No. 1, ribbons, cs	lb.	4.10	4.20
No. 2, cs.	lb.	3.75	3.80
No. 3, cs.	lb.	3.40	3.65
USP, powd., bbls.	lb.	1.05	1.15
Triacetin, dms., c.l., dlvd. E. of Rockies	lb.	.38	—
dms., l.c.l., same basis	lb.	.39½	—
tanks, same basis	lb.	.35½	—
Triallylamine, dms., c.l., dlvd.	lb.	.985	—
dms., l.c.l., dlvd.	lb.	.995	—
tanks, dlvd.	lb.	.96	—
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver.	lb.	.41	—
non-ret. dms., l.c.l., same basis	lb.	.43	—
tanks, same basis	lb.	.38½	—
Tributyl phosphate, dms., c.l., works.	lb.	.52½	—
dms, l.c.l., same basis	lb.	.53½	—
tanks, same basis	lb.	.50	—
Tributylamine dms., c.l., works	lb.	.67½	—
dms., l.c.l., same basis	lb.	.69	—
tanks, same basis	lb.	.65	—
Tributyrin, dms. t.c.l. dlvd.	lb.	.69	—
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b works	lb.	.52	—
USP, 100-lb. dms., frt. equald	lb.	1.25	—
Trichlorobenzene, dms. c.l., frt. alld. E.	lb.	.15	—
dms., t.c.l. frt. alld. E.	lb.	.16	—
tanks, frt. alld. E.	lb.	.13¼	—
Trichlorobenzene prices in the West 1¼c. higher.			
1,1,1-Trichloroethane dms., c.l., dlvd	lb	13¼	—
dms., l.c.l., dlvd	lb.	.16	—
tanks, dlvd	lb	12¼	—
1,1,2-Trichloroethane, dms., c.l., works	lb.	.15½	—
dms., l.c.l., works	lb.	.16¼	—
tanks, works	lb.	.13½	—
Trichloroethylene dms. c.l., or t.l., dlvd	lb.	.13½	—
dms., l.c.l., dlvd.	lb.	.14¾	.15¼
tanks, dlvd.	lb.	.12	—
Trichloroisocyanuric acid dms., c.l., t.l. frt equald	lb	65	—
dms., l.c.l. same basis	lb	75	—
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65% soln., non-ret. dms., 1 dm. frt. equald	kilo.	3.10	—
Tricresyl phosphate, coaltar, dms., c.l., dlvd	lb.	.33	—
dms., l.c.l., dlvd.	lb.	.36	—
tanks, dlvd	lb.	32½	—
Petroleum, dms., c.l., dlvd	lb.	.35	—
dms., l.c.l., dlvd.	lb.	.36	—
tanks, dlvd.	lb.	.32½	—
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E	lb.	.22½	—
dms., l.c.l., dlvd. E	lb.	.24	—
tanks, dlvd. E	lb.	.20	—
Triethanolamine, dms., c.l., dlvd. E.	lb.	.24½	—
dms., l.c.l., same basis	lb.	.26	—
tanks, same basis	lb	.22	—



Toluic Acids provide ideal intermediates for the manufacture of aromatic esters, amides, acid chlorides, nitrile and anhydride compounds. Cowles' facilities for large-scale production of m-Toluic, o-Toluic and p-Toluic acids make it possible to produce specially formulated esters and metallic salts of the Toluics where commercial quantities are indicated.

Call Cowles to discuss it, today.

Cowles CHEMICAL COMPANY
Cleveland 20, Ohio

Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½- —
dms., t.l., frt. alld. lb. .26½- —
tanks, frt. alld. lb. .24½- —
Triethylamine, dms., c.l., dlvd. E. lb. .50 · —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .44½- —
non-ret, dms., l.c.l., same basis lb. .46½- —
tanks, frt. alld. E. of Denver. lb. .42 · —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .42 · —
tanks, dlvd. lb. .38 · —
Triethylene glycol, dms., c.l., dlvd. E lb. .21 · —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
HP, tanks, dlvd. E lb. .20 · —
Triethylenetetramine, dms., c.l., dlvd. E lb. .48½- .48¾
dms., l.c.l., same basis lb. .50 · .50¼
tanks, same basis lb. .46 · —
Triisobutylene, tanks, dlvd. lb. .08 · —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 .305
tanks frt equald, 100% basis, lb. .26 · —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35½- —
dms., t.c.l. frt equald, 100% basis lb. .35½- —
tanks, 100% basis, frt. equald lb. .26 · —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .30½- —
dms., l.c.l., t.l., same basis lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd E lb. .34 · —
bgs., l.c.l., t.l., dlvd. E lb. .35 · —
Triphenyl phosphate, bbls., c.l., frt. equald lb. 41½- —
bbls. t.c.l. frt. equald lb. 43½- —
Triphenylguanidine, bbls., works lb. .90 · —
Tripropylene dms., c.l., dlvd. E gal. .44 · —
dms., l.c.l., same basis gal. .54 · —
tanks, same basis gal. .28 · —
Tripropylene glycol, dms., c.l., t.l., frt alld E lb. .20½- —
dms., t.c.l. t.l.t. frt. alld. E lb. .22 —
tankcars and compartmented tankcars, frt alld. E lb. .17½- —
tankwagon and compartmented, tankwagon, 1,000 gals., min. frt. alld. E lb. .18 · —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works kilo.154.00 —
Tung oil, dms., New York lb. .31 · .31½
tanks, imported lb. .29 · —
tanks, domestic mills lb. .28 Nom.
Tungsten metal powd. 2.0-2.5 microns, dms works lb 4.25 —
Tungstic acid, tech. dms., 1,000-lb. lots, works lb 2.25 · —
dms, smaller lots, works lb 2.45 —
Turpentine, gum (see Protective Coatings market Naval Stores)
Turpentine oil NF, cns. dms lb .28 .50
Tyrothricin USP 1 to 5 kilos gram .50 —

U

Ultramarine blue, cobalt type, dry or pulp 250-lb bbls., dlvd. E. of Rockies lb. .33½- .38
Jobbing types, dry, bbls., same basis lb. .18 · .19
Regular types, dry bbls., same basis lb. .25 · .40½
Ultramarine blue prices 1c higher W. of Rockies.
Umber pigment, burnt, American, dom. bgs., l.c.l., works lb. .08½- —
Raw, Amer., dom. bgs., l.c.l., works lb. .08½- —
Undecylenic acid 55-gal dms., f.o.b. works lb 1.28 · —
Unicorn root, false (see Helonias root)
Unicorn root, true (see Aletris root).
Urea 46% N, indust. bgs., c.l. t.l., f.o.b. plant ton.100.00 · —
Urea, feed grade, c.l., t.l., f.o.b. plant ton.95.50 · —
45% N, agricultural, bgs., c.l. f.o.b. plant ton.91.25 · —
Bulk, c.l., t.l., same basis ton.85.25 · —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks frt equald ton 120.00 —
37 grade tanks same basis ton 145.00 —
Urethane USP dms. t.l., f.o.b. works lb. .40 · .65
dms., l.c.l., same basis lb. .41½- .70
Uva-Ursi leaves, bls. lb. .14 .15

V

Valerian root, Belgian bgs. lb .32 · —
Indian, bgs lb .25 · —
dl-Valine, dms. 1 kilo works kilo.37.00 · —
Vanadium pentoxide, tech., dms. works lb 1.38 · —
Vandyke brown, bbls., l.c.l., works lb. .11 · —
Vanilla beans, Bourbon, tins lb. 6.50 · 6.70
Mexican cuts, tins lb. 8.40 · 8.60
whole, tins lb. 8.75 · 9.25
Vanillin ex ugnin 100-lb fib. dms. 2,000-lb lots or more lb. 3.00 —
less than 2,000 lbs lb. 3.20 3.30
Venetian red, jobbing, bgs., works lb. .0525- —
Venetian red, 20%, bgs., works lb. .0575- —
25%, bgs., works lb. .0625- —
30%, bgs., works lb. .0650- —
35%, bgs., works lb. .0675- —
40%, bgs., works lb. .0725- —
Vetiver oil, Bourbon, cns lb.17.00 · 17.25
Haitian, cns. lb.10.00 · 12.00
Victoria blue toner, molybdated, PMA 250-lb bbls., dlvd. E. of Rockies lb 4.50 4.95
Tungstated, PTMA, 250-lb bbls., same basis lb. 5.55 · —
Victoria blue toner bbls., prices 1c higher W. of Rockies
Vinyl acetate monomer, zone 1, 55-gal dms., c.l., dlvd lb. .1810- —
55-gal dms. t.c.l., dlvd lb. .1960- —
tanks, dlvd. lb 1560- —
tanktrucks less than 4,000 gal., dlvd lb. 1610- —
Vinyl n-butyl ether, tech., dms., t.c.l., works lb. .50 · —
Vinyl chloride monomer, tanks, works, min. frt. equald E. lb. .08 · —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot 1.12 · —
bots., 75cc., hospitals bot 1.56 · —
Vinyl ethyl ether tech. dms., c.l., works lb. .30¼- —
dms., t.c.l., works lb .31 —
tanks, works lb. 28¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 —
dms., t.c.l., same basis lb. .50 · —
tanks, same basis lb. .47 · —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb 1.20 · —
1 to 9 dms., works lb 1.35 · —
tanks, works lb 1.15 · —
Vinyltoluene, dms., c.l., f.o.b., dest. frt. paid, Zone 1 lb. .16½- —
dms., t.c.l., same basis lb. .18½- —
tanks, same basis lb. .14 · —
Zone 2 prices are 1c. per lb. higher.
Zone 1 is East of Rockies. Zone 2 is West of Rockies.
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units .02½- —
Virginia type red, bbls. works lb 1.40 —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.47.50 · —
325,000 units per gram, same basis kilo.30.88 · —
250,000 units per gram, same basis kilo.23.75 · —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units, .07 · —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .07 · —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin). 1-50 grams vials, tins gram 45.00 · —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots. 1-5 kilo dms gram. .57 · —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity gram.52.00 · —
0.1% trituration of cryst. B_{12} with dicalcium phosphate or mannitol 1-10 kilo 52.00 · —
Vitamin B_{12}, 0.1% trituration of cyanocobalmin, USP, with dicalcium phosphate or mannitol gm 52.00 · —
USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots gram 52.00 · —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on gelatin 100 and 500-gram bots on 1-5 kilo. dms. gram. .57 · —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF adsorbed on resin 500-gram bots 1-5 kilo dms. frt alld gram .57 · —
Vitamin B_{12}, 0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms. frt. alld gram. .57 · —
Vitamin C (see Ascorbic acid)
Vitamin D_3 (see Codliver and Fishliver oils, Calciferol and Viosterol)
Vitamin D, dry, 850,000 units per gram, kilo lots kilo 42.50 —
850,000 units per gram less than kilo lots kilo 45.00 —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin)
Vitamin K, active (see Menadione).
Vitamin K_1, 25-gram lots gram. 4.50 —
Violet methyl toner (see Methyl violet toner)
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root bark, bls lb. 2.10 · —
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb 1.95 · —
dms. 25-49-lb. lots, New York or Chicago lb 2.05 · —
Warfarin, 0.51%, dms., 5-24-lb lots, New York or Chicago lb. 2.15 · —
Watchung-type reds, bbls lb 1.95 · —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal dms. gal.12.25 —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls lb 21 .22
White precipitate, USP, powd., dms., 100 lbs. f.o.b. works lb 5.50 · —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls lb. 22 · —
Wintergreen oil, USP, nat., northern, cns lb 6.35 · 17.50
USP, nat., southern, cns lb 3.75 · 7.00
Wintergreen oil, syn. (see Methyl salicylate)
Witch hazel bark, bls lb. .20 · .25
Witch hazel leaves, bls. lb. .35 · .40
Wollastonite fine paint grade, bgs., c.l., works ton 41.00 · —
bgs., l.c.l., ex whse ton.51.00 · —
medium paint grade, bgs., c.l., works ton 29.00 · —
bgs., l.c.l., ex whse. ton.39.00 · —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed, Levant, bgs lb 2.50 · —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns lb. 4.75 · —

X

Xylene, coaltar, indust., tanks, works:
Bethlehem, Pa. gal. .29 —
Birmingham dist. gal. .29 —
Chicago dist gal. 28½- —
Cleveland dist. gal .29 —
Geneva, Utah gal. .29 —
Johnstown, Pa. gal .29 —
Lackawanna, N.Y. gal. 29½- —
Lone Star, Tex gal. .27 · —
Lorain, Ohio gal. .29 · —
Middletown, Ohio gal .30 · —
Minnequa, Col gal. .29 · —
Philadelphia dist. gal. .29 · —
Pittsburgh dist. gal. .29 · —
Sparrows Point, Md gal. .29 · —
Syracuse gal. .29 · —
Terre Haute, Ind. gal .29 · —
Youngstown, Ohio gal .29 · —
Xylene, petroleum, indust., tanks, works:
Bayonne, N. J gal. .29 · —
Baytown, Tex. gal. .27 · —
Charleston, S. C. gal. .29 · —
Chicago, Ill gal. .28½- —
Detroit, Mich., dlvd. gal. .27½- —
Houston, Tex. gal. .27 · —
Philadelphia, Pa. gal. .29 · —
Providence, R. I. gal. .30 · —
Sewell's Point, Va. gal. .28 · —
Wood River, Ill gal. .28½- —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb. .21 · —
dms., t.c.l., f.o.b., Richmond, Calif lb. .22 · —
tanks, frt. alld. lb. .19 · —
o-Xylene, dms., c.l., works lb. .08 · —
dms., t.c.l., works lb. .09 · —
tanks, works lb. .06 · .06½
p-Xylene, dms., c.l., works lb. .20 · —
dms., t.c.l., works lb. .21 · —
tanks, frt. alld. lb. .1645- —
Xylenol, cryst., 45°-47°C., m.p., dms., t.c.l., works, frt. equald lb. .23 · —
56°-58°C., m.p., dms., t.c.l., works, frt. equald lb. .33 · —
60°-62°C., m.p., dms., t.c.l., same basis lb. .40 · —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 · —
dms., t.c.l., same basis gal. 1.30 · —
tanks, same basis gal. 1.05 · —
b.r. 7°-9° C., dry at or below 227° C., dms. c.l., same basis, gal. 1.35 · —
dms., t.c.l., same basis gal. 1.40 · —
2,4-Xylidine, tech., dms. frt. alld. lb. 1.15 · —
2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 · —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .39 · —
dms., t.c.l., same basis lb .40 · —
tanks, same basis lb. .38 · —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. lb 2.15 3.05
Yeast, brewers, debittered, USP XV, Saccharomyces dlvd lb. .27 · —
Yeast, primary, USP XV, 150 mcg. B_1 per gram, 100-lb. dms lb. .47 · —
270 mcg., B_1 per gram, 100-lb. dms lb. .52 · —
300 mcg., B_1, per gram, 100-lb. dms. lb. .56 · —
900 mcg. B_1 per gram, 199-lb. dms lb. .60 · —
Torula, USP dlvd. lb. .18 · —

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls lb. .40 .45
Ylang Ylang oil, Bourbon, bots lb. 7.00 · 22.00
extra, bots lb.24.00 · 33.00
Yohimbine hydrochloride, bots., tins oz. 3.75 4.25

Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works lb. .37 —
50-lb. bgs., smaller lots, f.o.b. works lb. .41 · .44
Zinc acetate, NF, VIII, dms lb. .53 · —
Tech., dms., l.t.l., works lb. .2950- —
Zinc borate, bgs., 1,000 lbs or more, works lb. .25 · —
bgs., less than 1,000 lbs., same basis lb. .27 · —
Zinc chloride, NF, gran., dms lb. .42 · —
NF, precip., powd., dms lb. .26 · —
Tech., soln., 50%, dms., c.l., works 100 lbs. 5.80 · —
dms., t.c.l., works 100 lbs 6.40 · —
tanks, works 100 lbs. 5.15 · —
Zinc chloride, tech., fused, dms., c.l., works 100 lbs.10.70 · —
dms., t.c.l., works 100lbs.11.20 · —
Tech., gran., fib, dms., c.l., works 100 lbs.11.45 · —
fib dms. t.c.l. works 100 lbs.11.95 · —
Zinc chromate bbls., dlvd. lb. .29 · —
Basic bbls. dlvd. lb. .34 · —
Zinc cyanide dms., 1,000-lb. lots or more, works lb. .55 · —
dms., smaller lots, works lb. .57 · —
Zinc dust, pigment, bbls., c.l., Works lb. .16 · —
bbls., t.c.l., works lb. .17¼- —
Zinc fluoride, bbls., works lb. .49 · .80
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½- —
dms. t.c.l. frt. alld. lb. .23½- —
Zinc metal, prime western, slabs, E. St. Louis lb. .12 · —
Prime western slabs, New York. lb. .12½- —
Zinc naphthenate liq. 8% Zn., dms., frt. alld lb. .27 · —
10% Zn., dms., frt. alld. lb. .33 · —
Zinc nitrate, tech., flake, 100-lb. fib. dms., t.c.l. lb. .16½- —
300-lb. fib. dms, t.c.l. lb. .14½- —
300-lb fib dms., c.l. lb. .14 · —
Zinc oxide pigment, American process, lead-free, bgs., c.l., f.o.b. works lb. .12½- —
bgs., l.c.l., 10 tons or more, same basis lb. .13 · —
bgs., l.c.l., smaller lots, same basis lb. .13½- —
Leaded, 35%, bgs., c.l., mills, same basis lb. .13¼- .14
bgs., l.c.l., 10 tons or more, same basis lb. .13¾- .14¼
Leaded, 50%, bgs., c.l., same same basis lb. .13¾- .14¼
bgs., l.c.l., 10 tons or more, same basis lb. .14¼- .15
Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b., works lb. .14¼- —
bgs., l.c.l., 10 tons or more, same basis lb. .14¾- —
bgs., l.c.l., smaller lots, same basis lb. .15¼- —
red seal, bgs., c.l., same basis. lb. .14¼- —
bgs., l.c.l., 10 tons or more, same basis lb. .14¾- —
bgs., l.c.l., smaller lots, same basis lb. .15¼- —
white seal, bgs., c.l., same basis lb. .14½- —
bgs., l.c.l., 10 ton or more, same basis lb. .15 · —
bgs., l.c.l., smaller lots, same basis lb. .15½- —
Zinc oxide, USP, 50 lb.-dms., c.l., frt. alld. lb. .15¾- —
50 lb.-dms., t.c.l., 10 tons or more, same basis lb. .16¼- —
50 lb.-dms., t.c.l., smaller lots, same basis lb. .16¾- —
Zinc phenolsulfonate NF gran., dms lb. .45 .48
NF, powd. dms lb. .48 .49
Zinc resinate precip 7.2-7.6% Zn., dms., frt. alld lb. .45 · —
Zinc silicofluoride, dms. works lb. 12½ .14
Zinc stearate USP, cns., c.l. lb. .41 · —
cns., t.c.l. lb. .43 · .46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l. dlvd.E. 100 lbs. 8.00 · —
bgs., t.c.l., dlvd. E 100 lbs. 9.00 · —
Zinc sulfate in bbls 40c higher
Zinc undecylenate 75-lb. fib. dms., f.o.b. works lb. 2.04 · —
Zinc, yellow (see Zinc chromate)
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.10.25 · —
bbls., c.l., works 100 lbs.10.85 · —
bbls., t.c.l. works 100 lbs.11.35 · —
Zinc-formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld lb. .26 · —
Normal, 250-lb. dms., frt. alld lb. .55 · —
Zircon (G) gran., bgs., c.l., works lb. .03½- —
bgs., 5 tons to c.l., works lb. .03⅝- —
bgs., 1 ton to 5 tons, works lb. .03⅝- —
bgs., smaller lots, works lb. .04 · .06¼
Milled, bgs., c.l., works lb. .04¼- —
bgs., 5 tons to c.l., works lb. .04⅜- —
bgs., 1 ton to 5 tons, works lb. .04⅝- —
bgs., smaller lots, works lb. .05 · .07½
Zircon (G) in barrels 1c. higher.
Zirconium acetate soln., 13% ZrO_2, dms. c.l. 30,000 lbs. min., works lb. .23 · —
Zirconium hydride powd. electronic grade, dms. works lb.14.00 15.00
Zirconium oxide, CP, white, grd., bbls or bgs. works lb. 1.50 —
Electric-fused lump, bgs., 500 to 1,999-lb lots, works lb. .48½- —
bgs., smaller lots, works lb. .51 · —
Milled, bgs., c.l., works lb. .62 · —
bgs., 5-ton lots, works lb. .62½- —
bgs., 1-ton to 9,999-lb. lots, works lb. .63½- —
bgs., 500 to 1,999-lb. lots, works lb. .64 · —
bgs., smaller lots, works lb. .66 · —
Glass polishing grade, 94-97% ZrO_2, bgs., works lb. .58 · .68
Opacifier grade, 85-90% ZrO_2, bgs., lb. .27 · .50
Stabilized oxide, 91% ZrO_2, milled, bgs lb. .62 · .68
Zirconium oxychloride, cryst., cns., 5-ton lots, works lb. .37½- —

Carlon Buys Big Share Of Molded Plastics Firm

Carlon Products Corporation, Aurora, Ohio, has acquired 80 percent of the stock of Warren Molded Plastic Company, Warren, Ohio.

Vince Cetrone, former general manager of the acquired firm, has been elected president of Warren by the Carlon board, and will be responsible for expanding operations of the company in Cortland, a suburb of Warren.

The Warren plant will continue to produce custom molded products for automotive, houseware, electronic, aerosol packaging, chemical and construction customers.

In addition, Carlon says, the facility will now turn out precision-molded plastic proprietary products for the parent company's plumbing, hardware, industrial and building supply markets.

Acquisition of Warren is reported to be one step in a continuing diversification program.

TiO_2 Plant in Canada

Continued from Page 4

company's annual consumption at about 92 million pounds in 1965.

Since titanium pigments were first introduced into the country in the 1930's by Canadian Titanium, the history has been one of rapid market expansion. Between 1941 and 1959 Canadian consumption grew by an average of 11 percent a year.

Initially the rapid growth in their use was largely due to the ever-increasing uses found for these pigments: which have to a considerable extent supplanted the older white pigments, white lead, zinc oxide and lithopone. In recent years, however, the rapid industrialization of Canada, particularly in secondary manufacture, has been the greatest contributing factor to the rising consumption of titanium dioxide.

For instance, in the paint industry alone, which is the largest single user of this chemical, consumption rose from 3 million pounds in 1939 to 39 million in 1959, it is pointed out.

Increased capacity at the Varennes plant will enable the company to maintain its predominant position as the country's largest supplier of titanium pigments.

The Varennes plant, situated on the south shore of the St. Lawrence River only fifteen miles from Montreal, according to reports, has largely displaced imports of titanium dioxide pigments from the United States, Canada's chief supplier before 1957 when the plant started production.

New production equipment—some of it highly complex—has been added to nearly all major steps in the manufacturing process. In all cases machinery has been incorporated in the continuous-flow process to meet a minimum yearly production capacity of 50 million pounds of titanium dioxide, but in a large number of instances, wherever it has proved feasible, capacity already has been doubled to 64 million pounds.

Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

Founded October 18, 1871 by William O. Allison
Directed 1900-1942 by Harry J. Schnell
EDITOR AND PUBLISHER: William S. Auchincloss
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SCHNELL PUBLISHING COMPANY, INC., 30 Church Street, New York 7, N. Y.
(RE 2-9820) Cable Address: Reporter, New York
PRESIDENT: William S. Auchincloss
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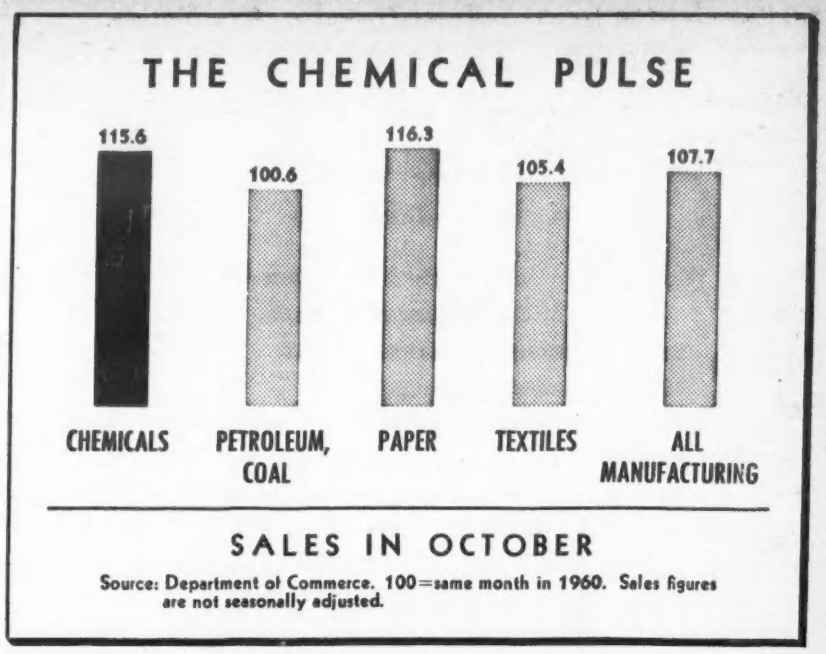
Volume 180 December 18, 1961 No. 25



Source: Department of Commerce. 100=same month in 1960. Sales figures are not seasonally adjusted.

Drug Patents and Prices

Whatever has at any time come up in the Kefauver senate committee's hearings on his charges of illegal, immoral, or somehow wrong pricing and profiteering in the drug industry and trade, it was quite clearly evidenced in the testimony of the Pharmaceutical Manufacturers Association spokesman reported on page 3 last week that the industry's guiding principles are based on a sincere desire and purpose to be beneficially of service to the physically ailing members of the public. It is encouraging to read in connection wit. that report that the anti-drug senator from Tennessee is now willing and ready to give that evidence due consideration beyond the acceptance which he already has given it.

Principles are one thing in the views of the senator. Prices and patents are quite something else. So, it must be recognized that, if the edging toward agreement is to get to where it should be, there must be supplementary or complementary mutual or reciprocal easing of the opposing stands on prices and patents.

The drug industry cannot logically or reasonably be expected to make the first or farthest retreat in that respect. It must have adequate patent protection for what it has invested in research. Its pricing practice cannot reasonably be assayed along the lines or on the grounds of mathematical calculating at the level of fifth-grade public-school curricula, such as led to the recent charge by the senator that tetracycline, for which, he said, the pharmacist is charged 30 cents per unit, costs only 1.6 cents per unit to produce.

The cost of production of anything found by research is not a fair basis for the determination of the price of its providing. It is the least of the three costs—finding and selling are the other two—which contribute to the cost of providing.

The volume of sales is a determining factor in the fair calculating of the selling price of any article. That is foremost among the major reasons why it is a common commercial practice to reduce a selling price periodically as the volume of sales increases with the passing of time.

Chemical Chilliness

It is not difficult (economically) to see why the chemical industry is chilled by President Kennedy's devotion to the cause of freer world trade. But, if economics should be applied along the lines of the four recommendations by a chemical economist, cited in the tariff chill article on page 3 last week, something approaching normality in temperature would not be difficult to attain.

Turning to the warning about "Red" competition on page 5, however, one is likely to get at least cold feet—and that is not good for progress. Neither is the hot head, which certainly will be coming to the industry if the Russian-Chinese team does not split apart and its threat keeps on growing bigger and bigger.

And what will be the consequent effects—at least symptoms—that must be expected to come upon some members of the chemical industry when the full significance of the European charges of dumping (on page 5) gets down to work as a mental provocative?

World trade is in large degree a matter of tit-for-tat. Reciprocity is not confined to commercial bartering or bargaining. It is a factor in all areas of human relations.

Is the chemical market in the United States big enough to keep the country's chemical industry as busy as it should be to be profitable? If it is, why should it be necessary—or something—to resort to dumping in the European market? To meet "Red" competition—which does not have to be profitable? A better and steadily expanding field in which to do some such meeting is ready and waiting in Latin America, where bartering, rather than bargaining, is still the popular promotive factor. Recent reports from Britain provide convincing evidence that the British chemical industry is not going to let the Soviets make all the hay in that market.

That is one more reason why the Manufacturing Chemists' Association would do well to undertake some measure of exploitation in the Southern hemisphere. Something good for that chilliness no doubt could be found there—for various reasons other than that summer is now coming on below the equator.

For Scientific Morality

That new Ten Commandments job faced by the Secretary of Commerce (commented on here last week) is a cinch compared with that presented in a plea by the chairman of the Swedish Nobel Institute for an "international moral code to govern scientific research." In conferring the 1961 Nobel prizes, he declared that such a code is needed "if we are to survive."

The Nobel chief's plea was evolved from his perturbance over the fact that "some of the most important discoveries in the past decades are used for making weapons of mass destruction on a scale never imagined, and some people believe these weapons can settle the conflicts we are facing; statesmen who guide the destiny of the world do not seem to realize what is happening."

The United States is officially concerned with the effects of the progress of science on humanity. That is one of the reasons why it is engaging in what are popularly known as "atomic tests" of a nature quite the opposite of that of those aimed at mass destruction.

It would not in any way be an easy, simple undertaking to get an international code of scientific morality—at least one nation could not be enrolled in that or any other humanistic movement. But, scientific leaders in all fields, especially those in educational positions, should strive earnestly for such an achievement.

Meetings

American Association for the Advancement of Science, Denver, Colo., December 26-31.
American Chemical Society, national meeting, Washington, D. C., March 20-29.
American Pharmaceutical Association, annual meeting, Convention Center, Las Vegas, Nev., April 25-30.
American Society for Testing Materials, committee week, Statler-Hilton hotel, Dallas, Tex., February 5-9.
Animal Health Institute, annual meeting, Statler-Hilton hotel, Washington, April 10-12.
Association of American Soap & Glycerine Producers, annual convention, Waldorf-Astoria hotel, New York, January 24-26.
Chemical Market Research Association, Warwick hotel, Philadelphia, February 2-3.
Drug, Chemical & Allied Trades Association, annual banquet, Waldorf-Astoria hotel, New York, March 1.
Federal Wholesale Druggists' Association, mid-year meeting, Statler-Hilton hotel, New York, March 1-2.
National Association of Chain Drug Stores, Americana hotel, Bal Harbour, Fla., April 9-12.
Northeastern Weed Control Conference, New Yorker hotel, New York, January 3-5.
Packaging Exposition, sponsored by American Management Association, Coliseum, New York, April 9-12.
Pharmaceutical Manufacturers Association, central regional meeting, Edgewater Beach hotel, Chicago, February 13-14; western regional meeting, Ambassador hotel, Los Angeles, February 19-20; annual meeting, Boca Raton Club, Boca Raton, Fla., April 1-5.
Salesmen's Association of the American Chemical Industry, joint meeting with the Chemical Buyers, Group of the National Association of Purchasing Agents, Roosevelt hotel, New York, February 1.
Society of Chemical Industry, American Section, Perkin medal dinner, Waldorf-Asoria hotel, New York, February 2.
Society of the Plastics Industry, reinforced plastics division conference, Edgewater Beach hotel, Chicago, February 6-8; annual western section conference, del Coronado hotel, Coronado, Calif., April 4-6.
Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, January 9.
Toilet Goods Association, joint convention with Toilet Goods Manufacturers Association of Canada, Chateau Frontenac, Quebec City, Canada, June 24-29.

Washington Talks It Over

Ethical Drug People Are Being Pressed Hard to Give an Explanation for Taking Their Stand In Favor of the 'Efficacy Amendment' to the Food and Drug Law.

By Ralph L. Cherry
Washington Editor

The ethical drug manufacturing industry has been hard pressed in recent days to explain a position: its latest stand favoring amending the food and drug law to require a showing of efficacy for new drugs, as well as proof of safety in order to get approval of a new drug application.

A number of people have been reading into the limited endorsement given such an amendment by industry spokesmen before the Kefauver committee evidence of a split in ranks of the industry and the medical profession on this issue.

They recall that the American Medical Association took a firm stand against inculsion of efficacy as one of the standards of the law because of a fear that Food & Drug Administration would drift into evaluating the "relative" efficacy of a drug and put competing drugs at a certain rank in value.

Last week the Pharmaceutical Manufacturers Association made a special mailing of the supplemental statement given to the Kefauver committee by Eugene Beesley, president of Eli Lilly & Co. and PMA board chairman, that there is no difference in view between either PMA, AMA or FDA on this point.

Mr. Beesley points to the part and page of the hearing record to show that on the central issues FDA, AMA and PMA are in full agreement.

All agree that before a manufacturer can market a new drug, he must submit evidence to the FDA that the drug will have the effects which the manufacturer claims. He points to the page in the record where AMA and Secretary of Health, Education & Welfare Ribicoff were very explicit on this point.

Recalling the AMA testimony of concern that the bill might give FDA power to pass on relative effectiveness, Mr. Beesley notes that FDA Commissioner Larrick, HEW Secretary Ribicoff and Chairman Kefauver have disclaimed any such intention. PMA shares this concern of AMA, but is ready to accept the disclaimers with a clarification of the legislation on this point.

PMA also agrees with AMA that FDA should not resolve a difference of opinion among responsible clinicians as to the effectiveness of a new drug by deciding that the drug should not be allowed to go on the market.

Because Secretary Ribicoff indicated he did not want such power and in the light of the other clarifying statements, PMA offers a proposal that the test should be whether a manufacturer has presented "substantial" evidence to support his view that his drug will do what he says it will do. And by "subtantial," PMA means less than preponderant.

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Heavy Chemicals

Caustic Potash Is Ready to Move; TKPP, Potcarb Are Potent Primers

Caustic potash consumption this year will edge past last year's estimated 110,000 ton volume, and by 1965 the alkali should pick up at least another 28,000 tons. Hottest areas of the market are tetrapotassium pyrophosphate (TKPP) and potassium carbonate. Projections on TKPP growth vary widely, from 6 percent up to 15 percent a year. Assuming a modest 10 percent rate, sales of the detergent chemical will move from an estimated 27,500 tons in 1960 to 44,000 tons in '65. This would carry caustic potash use in TKPP from about 20,000 tons to 30,000 tons.

If TKPP doubles by '65, as some researchers figure it, potash use for TKPP will hit 36,000 tons.

Though opinions differ on TKPP, the short-term future of potassium carbonate is certain. "Alkarb," a lithium by-product which several years back took over the TV tube market from carbonate, will no longer be available next year. Upshot: Potcarb sales will gain as much as 10,000 tons in 1962, with an 8,000 ton dividend for caustic potash.

Helping to firm up potcarb's future is the continued growth of colored TV. One producer has just reported for the first time that its colored TV revenues have surpassed income from conventional sets.

Since only carbonate can be used in the color sets, time is on its side even though "Alkarb" should again become available by a resumption of government purchases of lithium.

On the minus side of the caustic potash ledger are soaps and dyes. One source figures direct use of potash in soaps and detergents at 16,000 tons a year, and in dyes at 12,000 tons. Both totals are expected to fall-off slowly over the years.

Soap use has been going steadily downhill, and consumption in dyes is now on the wane because potash-based dyes can not be used in the new synthetic fibers.

Offsetting these declines will be population-based growth for the remaining outlets on the end-use line-up.

These outlets are estimated by one source as follows: batteries, 2,000 tons; electrical outlets, 270 tons; metal-treating, 250 tons; asphalt, 3,300 tons, and miscellaneous, 4,300 tons. Another 8,000 to 10,000 of caustic potash go into smaller volume potassium salts.

Though the best estimate on caustic potash capacity tabs it at 125,000 tons, boding a tight market ahead, the industry's real potential is much greater. Two factors must be considered:

- Chemical grade potassium chloride substitutes for KOH in some chemical outlets.
- A caustic soda-chlorine facility can be converted over to potash production in short order with a relatively small investment in equipment. The trend in recent chlor-alkali installations has been to engineer them in such a way as to maximize flexibility.

Most observers see a higher growth rate for chlorine than for caustic soda. Together with the tightening vise on caustic soda profit margins this means that potash will always get first consideration as coproduct in a chlor-alkali expansion. The most recent electrolytic expansion at Niagara Falls involved potash.

Price Trends

Advanced
Silver, 1c. per troy oz.

Reduced
Tin, Straits, ⅜c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
106.65	106.65	106.63	106.88

For Current Prices See Page 9

Acids

Hydrochloric—Production jumped to 82,985 tons in October from 70,576 tons the previous month, the Census Bureau reports. Stocks closed the month at 13,858 tons, down from 14,499 tons on September 30.

Nitric—Production of 297,511 tons of nitric in October represented a significant advance over September's 283,880 tons, the Census Bureau reports. Stocks at month's end were 17,500 tons as compared with 17,063 a month earlier.

Phosphoric—Production zoomed in October, hitting 195,245 tons, up from 175,653 tons the previous month. Stocks rose only slightly (from 32,043 tons to 35,245), indicating a significant gain in sales.

Sulfuric—Production of the acid through September stands at 13,153,328 tons, down slightly from the 14,466,144 tons in the first nine months of 1960. Failure of steel output to progress as anticipated and a spotty fertilizer season in the midwest contributed to the decline.

American Iron & Steel Institute reports steel output during the week ended December 9 at 2,158,000 tons, up sharply from 2,073,000 tons during the previous week.

Steel production to date stands at 91,111,000 tons, as compared with 94,598,000 tons in comparable 1960 period.

Paper Production Lower

The American Paper & Pulp Association reported paper production for the week ended Dec. 9 at 93.5 percent of theoretical capacity as compared with the revised figure of 94.9 percent for the previous week and 93.5 percent for the corresponding week of last year.

Bases and Salts

Borax—A broadly-based increase in sales has been experienced from the middle of the second quarter to the present. Volume in the third quarter was well over that of the same period last year, trade sources report.

Consumption in fiber glass and porcelain enamel outlets has responded to the general improvement in business conditions.

As previously announced, prices of borax will be unchanged in 1962. One producer so informed its customers a couple of months back, and the other two factors in the trade went along with the move.

Supply remains ample. Consumers, however, have worked with light inventories all year long, and there has been no notable build-up at producing points.

Caustic Soda—As year's end approaches paper makers and aluminum refiners are still ordering the alkali in good volume, trade sources report. Also active are inorganic chemical makers.

With consumers coasting all year long on light inventory, there is now less need than usual to reduce orders as the year closes, trade sources point out.

Prices of caustic continue as previously, steady for the great bulk of sales; shaded in fugitive situations.

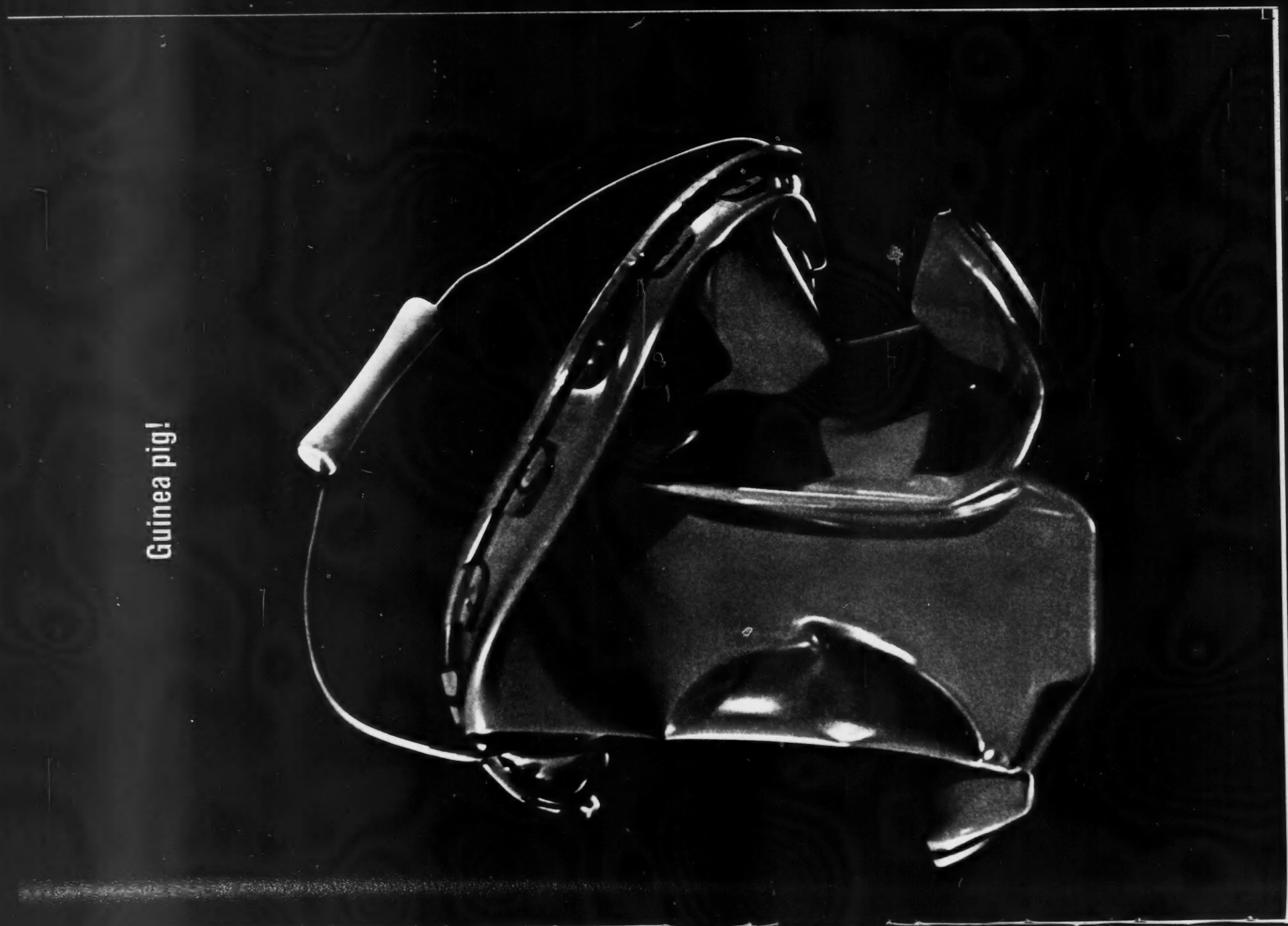
Chlorine—Organic chemical makers are at the vanguard of a good fourth-quarter sales season, trade sources report. Prices remain steady at the advanced levels posted in April, 1960.

Costs have gone up since then, but business conditions in general, and the profit-squeezed position of paper makers in particular, are thought to have kept the lid on chlorine prices.

Copper Sulfate—Business is reported fair, water treatment use partly offsetting the decline in fungicide sales to Central America. Prices are steady and unchanged.

Sodium Perborate—Both domestic producers of this chemical have now posted price advances amounting to 1.4c. a pound on tankcars and other large shipments. For the smallest quantity bracket, the boost runs 3½c. a pound.

The producer announcing the advance last week will make it effective January 1 for both spot and contract. For the



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Vacuum Test: Inspector drains the air out of a steel pail in the vacuum test until the pail's sides cave in.

Above *Shake-Table Test:* Stacked, filled pails are bounced around unmercifully on the shake table simulating the roughest shipping conditions.

Left *Drop Test:* Filled with bicarbonate of soda, this steel pail is being dropped six feet onto a concrete floor.

Note: All pails listed below as well as our complete line of drums, have a wide variety of openings and fittings. They are also available in any color combination or specified design, and with any required lining. **Plant Locations:** Alameda, California, 1849 Oak Street, Phone: Lakehurst 2-5511 • Camden 1, New Jersey, P. O. Box 530, Phone: Normandy 3-8000 • Chicago 27, Illinois, 14700 Harvard Avenue, Phone: Interocean 8-9610 • Los Angeles 58, California, 5100 Santa Fe Avenue, Phone: Ludlow 7-2121 • New Orleans 23, Louisiana, P. O. Box 23152, Phone: Vernon 3-2851 • Port Arthur, Texas, P. O. Box 1440, Phone: Yukon 2-9455 • Sharon, Pennsylvania, P. O. Box 251, Phone: Gibson 8-6841

Capacity Gallons	Gauge	Inside Height	Overall Height	Inside Diameter	Outside Diameter	Approx. Tare Weight	Ocean Cube	Approx. No. Per Carload	
								40′	50′
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3	24	7-61/64	8-13/16	11-1/4	11-1/2	4.2	0/8	6890	8400
3-1/2	26	9-13/64	10-1/16	11-1/4	11-1/2	3.4	0/9	5830	7100
3-1/2	24	9-13/64	10-1/16	11-1/4	11-1/2	4.5	0/9	5830	7100
5	26	12-45/64	13-9/16	11-1/4	11-1/2	4.0	1/1	4240	5270
5	24	12-45/64	13-9/16	11-1/4	11-1/2	5.3	1/1	4240	5270
6	24	15-5/64	15-15/16	11-1/4	11-1/2	5.9	1/3	3710	4500
LUG COVER PAILS									
3	26	7-37/64	8-1/2	11-1/4	12-1/16	3.3	0/9	5350	6500
3	24	7-37/64	8-1/2	11-1/4	12-1/16	4.3	0/9	5350	6500
3-1/2	26	8-53/64	9-3/4	11-1/4	12-1/16	3.5	0/10	4280	5200
3-1/2	24	8-53/64	9-3/4	11-1/4	12-1/16	4.6	0/10	4280	5200
5	28	12-21/64	13-1/4	11-1/4	12-1/16	3.5	1/1	3200	3900
5	26	12-21/64	13-1/4	11-1/4	12-1/16	4.2	1/1	3200	3900
5	24	12-21/64	13-1/4	11-1/4	12-1/16	5.4	1/1	3200	3900
6	24	14-45/64	15-5/8	11-1/4	12-1/16	6.0	1/4	2500	3000
6-1/2	26	15-57/64	16-13/16	11-1/4	12-1/16	4.8	1/5	2500	3000
6-1/2	24	15-57/64	16-13/16	11-1/4	12-1/16	6.3	1/5	2500	3000
DOUBLE BEAD TIGHT HEAD PAILS									
3	24	7-53/64	8-11/16	11-1/4	12-1/16	4.3	0/9	4620	5600
3-1/2	24	9-5/64	9-15/16	11-1/4	12-1/16	4.5	0/10	4280	5200
5	26	12-37/64	13-7/16	11-1/4	12-1/16	4.1	1/1	3000	3650
5	24	12-37/64	13-7/16	11-1/4	12-1/16	5.4	1/1	3000	3650
6	24	14-61/64	15-13/16	11-1/4	12-1/16	6.0	1/4	2600	3160

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Heavy Chemicals

other, the effective date on spot is December 15.

Zinc Peroxide—Prices will be re-adjusted January 1 to reflect increased costs of production. Under the new schedule, prices are 80c. a pound for shipments of 100 pounds or more, and $2 a pound for smaller shipments. The old list quoted 4,000 pounds or more at 55c. a pound; 1,000 to 4,000 pounds at 75c.; two pounds to 1,000 pounds at $1 and one pound or less at $2.

Soda Ash—Production of synthetic ash rose to 408,108 tons in October, up from 369,142 tons the previous month, the Census Bureau reports. Stocks closed the month at 93,826 tons, down from 99,556 tons a month earlier.

Nonferrous Metals

Aluminum—Shipments of secondary aluminum alloy ingot by independent smelters during September declined 2 percent, and production was off 9 percent, the Bureau of Mines reports. Stocks of finished alloys held by independent smelters on September 30 were down 6 percent from August. Consumption of purchased aluminum-base scrap by all consumers dropped 8 percent.

Silver—Price rose 1c. to $1.02¾ a troy ounce during the week. Following termination of Treasury sales last fortnight the price has risen 11⅜c.

Tin—Straits metal price moved within a narrow range, closing ⅜c. lower Friday at $1.21 a pound.

Heavy Chemical Briefs

OLIN PROCESS IN USE: First full-scale commercial application of Olin Mathieson Chemical Corporation's "Textone" continuous bleaching process has been announced by Cranston Print Works Company, Fletcher, N. C. The new process, developed by Olin's chemicals division, reportedly provides for continuous bleaching of both synthetic and natural fibers at reduced costs.

CHEMICAL WASTE REMOVAL: Crane Company's Cochrane Division, Philadelphia, has developed an ion-exchange system to neutralize acid and alkali waste water resulting from industrial plant operations. Full details on the process are available in bulletin "ADC 17-1009-761," from the division at 3265 North 17th Street, Philadelphia 32.

PROGRESS AT GREEN RIVER: Stauffer Chemical Company has now driven both haulage and service shafts in the main body of its trona deposit near Green River, Wyo. As anticipated, Stauffer says, the high-grade natural sodium sesquicarbonate lies at a depth of less than 900 feet.

Begun a year ago, the Green River soda ash project is slated to be in full operation by mid-1962. Capacity is expected to be between 150,000 and 200,000 tons of ash annually.

PROPELLENT CONTRACT: Hercules Powder Company, Wilmington, Del., has been awarded a contract totaling $4,493,561 by the Navy's Bureal of Weapons for research and development in solid propellents.

Hercules last week announced formation of a new high energy research division at its Wilmington research center. Dr. Robert S. Voris has been named manager of the new division which will do research work supporting the chemical propulsion division.

Thompson Marks Progress In Fields of Resin, Peroxide

Thompson Chemical Company, Pawtucket, R.I., has just completed facilities for the bulk handling of "Trulon" vinyl resins in hopper trucks and has also announced commercial production of "Truox" lauroyl peroxide.

Regarding the facilities for "Trulon," Thompson says that additional equipment will be in place early in 1962 to accommodate bulk rail shipments. The revised lauroyl peroxide specifications give the user a 2½ percent increase in activity without additional cost, Thompson says.

Winterbourne Elects

S. Winterbourne & Co., New York, has elected George T. Hawxhurst president and treasurer, and his son, Richard H. Hawxhurst, vice-president and secretary. The elections follow the recent death (OPD, 12/11/61) of Hendrick E. Hendrickson, the previous president.

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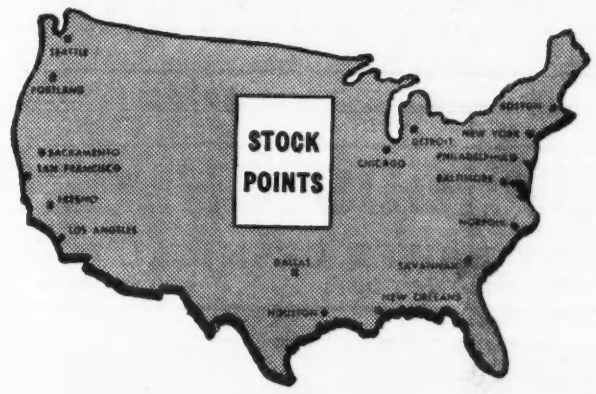

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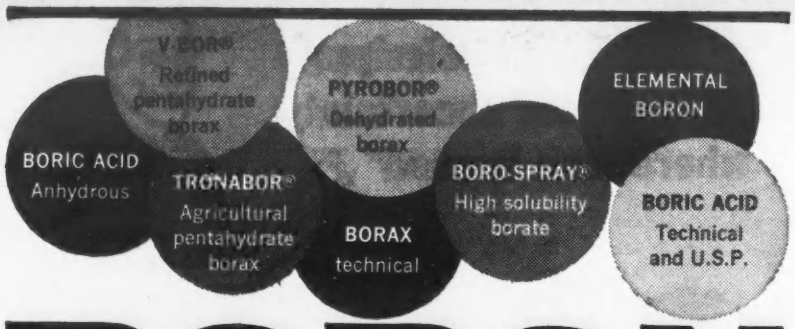

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Data Offered

Two new bulletins dealing with "Dylite" extrusion grade expandable **polystyrene** are available from Koppers Company's plastics division. One describes the extrusion process for conversion of polystyrene into tubular film and sheet, while the other describes properties of the film and sheet extruded. Copies of bulletin "C-9-273" may be obtained by writing the division at 901 Koppers Building, Pittsburgh 19, Pa. Specify "4a" for the extrusion process and "4b" for the properties brochure.

An analysis of the physical properties of "Tenite" **polypropylene** and its performance under various conditions of use in injection molding is presented in "Technical Report No. 8," issued by Eastman Chemical Products, Inc., a subsidiary of Eastman Kodak Company. Copies are available from the company's plastics division at Kingsport, Tenn. Dealt with in the report are such factors as molding and post-molding shrinkage, surface finish, construction of the mold, integral hinge design, cylinder and mold temperatures, cycle time and optimum cavity usage.

Typical properties of Witco Chemical Company's heat-stable **zinc stearate** are presented in technical service bulletin "#M-34." Copies are available from the company at 122 East 42nd Street, New York 17. Major uses of the material are as an internal lubricant for extruded and molded polystyrene and as a rubber dusting agent. It is said to be exceptionally resistant to color degradation at elevated temperatures.

A twelve-page catalogue of "Darco" powdered activated **carbons** for removing unwanted colors, odors, tastes and other impurities by absorption has been issued by Atlas Chemical Industries, Inc., Wilmington, Del. Copies and further information are available from Gardner Harvey, at the company's chemical division, Wilmington 99. Described in complete detail are three "Darco" carbons that reportedly meet most requirements for purification of chemicals, foods and drugs. Other "Darco" products, designed to meet special process requirements, are also described in the new selector-type catalogue.

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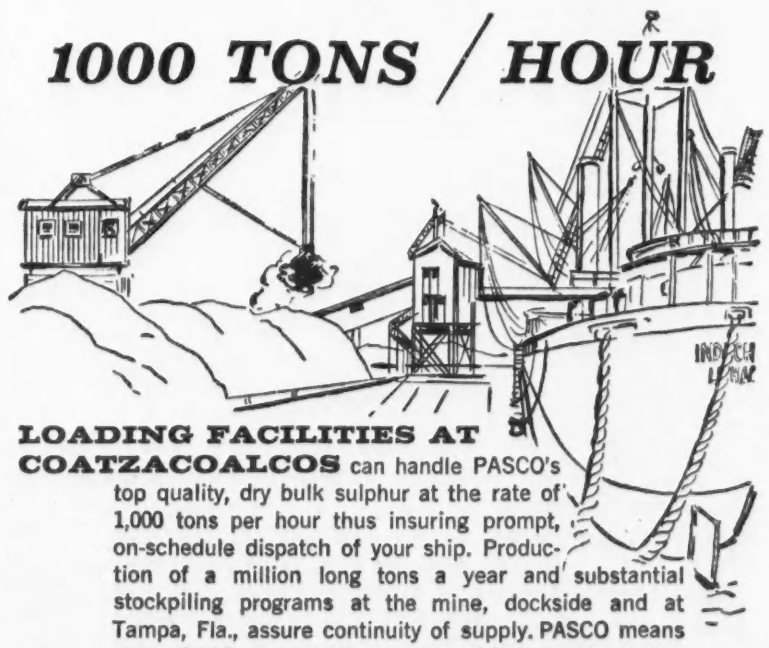

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Obituaries

George H. Frates

George H. Frates, for sixteen years Washington representative of the National Association of Retail Druggists, died in that city December 5. He was seventy years old.

Mr. Frates began his career as a pharmacist in San Francisco, where he remained for twenty-eight years before going to Washington. While with NARD he became head of the executive committee and was serving in that post at the time a long-term contract was arranged for the late John W. Dargavel. Mr. Frates retired from the association last year.

Justin Potter

Justin Potter, president and chief executive officer of Virginia-Carolina Chemical Corporation, Richmond, Va., died December 9 in Nashville, Tenn. He was sixty-three years old.

Mr. Potter had held the post of chief executive officer at Virginia-Carolina since 1958 and had been a director of the concern since 1956.

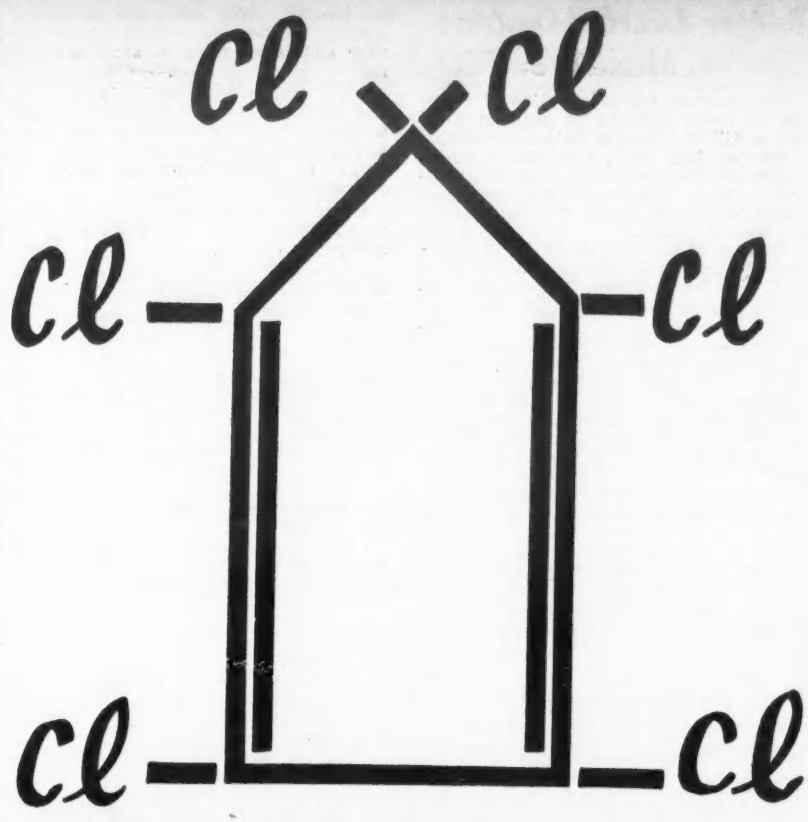
John C. Ingram, a leader in the soap industry, died November 20 at the age of seventy-two. His early days were spent with American Cotton Oil Company and its subsidiary, N. K. Fairbank Company. Later Mr. Ingram joined Armour & Co., and became general superintendent of its auxiliaries group.

Chemical Business Off

Continued from Page 4

last year sales totaled $3,132 million and earnings $246 million.

Manufacturers of pharmaceutical chemicals reported a much better record. Their sales were up slightly in the third quarter to $1,061 million, from the second quarter total of $1,007 million and last year's third quarter level of $1,008 million. Profits after taxes were up to $117 million in the third quarter from the second quarter total of $91 million. In the third quarter last year they were $110 million.



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Badger Awarded Contract For Oxo Alcohols Facility

The contract for construction of a new oxo alcohols plant to be built at Tidewater Oil Company's Delaware refinery Delaware City, Del., has been awarded to Badger Manufacturing Company, Cambridge, Mass. The project will begin with the construction of the pre-fractionation area of the plant.

The new petrochemicals facility is a joint project of Tidewater and Air Products & Chemicals, Inc. It will manufacture octyl, decyl and tridecyl alcohols.

The pre-fractionation area will superfractionate narrow boiling range olefins to serve as feedstock for the oxo alcohols section. This area is scheduled to go into operation in April, 1962. The oxo plant proper is expected to be in operation by next July.

Off-site work on the project is already under way by Catalytic Construction Company, supplier of contract maintenance at the Delaware refinery. Ground leveling of the site of the new plant is completed, the engineering design virtually completed and materials procurement well underway, Tidewater says.

Initial capacity of the new plant will be 30 million pounds a year, with its design facilitating expansion to double that capacity.

PE's 1962 Outlook

Continued from Page 7

amounts to a 37 percent gain over '61 (estimated sales: 260 million pounds), itself almost certain to be a phenomenal year with a whopping increase of 52 percent over 1960's 171 million pounds.

Mr. Marsh points out that the '62 demand is still considerably below the nation's conventional polyethylene capacity, now about 2 billion pounds.

As he sees it, the conventional PE sales picture next year is likely to break down this way:

Film and Sheet	475 million pounds
Injection Molding	200 million pounds
Substrate Coating	120 million pounds
Wire, Cable Coatings	120 million pounds
Blow Molding	50 million pounds
*Miscellaneous	60 million pounds
Extruded Pipe	30 million pounds
Exports	300 million pounds
Total	1,355 million pounds

* Includes powdered polyethylene.

Figuring in Mr. Marsh's conventional PE prediction are several factors:

- An anticipated major growth in the breadwrap and frozen food fields, which should greatly affect film-sheet demand.
- Rapid acceptance of polyethylene-coated paperboard containers for milk, other dairy products and fruit-flavored drinks.
- An expected jump in PE-foil and polyethylene-cellophane laminations.
- A dramatic spurt in food packaging, brought on by the 1961 approval of PE for that purpose by Food & Drug Administration.

Atmosphere Cleared in PE Market

"Overall" Mr. Marsh says, "it is important to note the 'cleared atmosphere' which should prevail in polyethylene markets in 1962. This is in sharp contrast to the early-1961 doubt and confusion in the marketplace generated by claims and counterclaims for new plastics materials."

Mr. Wash forecasts the high-density polyethylene market will hit 625 million pounds in 1965.

Fastest growing sales of high-density polyethylene are in the blow-molded application. Sales for blow-molding moved up from 45 million pounds in 1960 to an estimated 110 million in 1961, and are expected to reach 160 million in 1962.

The bleach bottle is now the largest single blow-molded application. Other big fields: detergent bottles, home chemicals. Just entering the market are containers for vitamin tablets, antacids and other pharmaceutical products.

The plastic's light weight and resistance to breakage are important factors, especially as containers for medicines the patient wishes to carry around with him.

Injection molding—for such industrial and consumer applications as molded furniture, auto parts and housewares—is the second major sales area. Sales rose from 73 million pounds in 1960 to an estimated 90 million pounds this year. The projection for 1962 is 110 million pounds.

Blow-molding and injection molding together account for about 75 percent of all high density polyethylene sales, Mr. Wash reports.

Another fast-growing market is pipe and conduit, which consumed 16 million pounds in 1960, 21 million pounds this year and is expected to account for 27 million pounds in 1962.

Installation of this plastic pipe is simple and requires no welders or other skilled workers. Pipe section ends are joined simply by heating and pressing them together to give a bond that is actually stronger than the pipe itself.

Other major sales areas are: film and sheet, filament, fire and cable insulation and paper coating.

Parke-Davis Starts Up

Continued from Page 3

histamine, and certain packaging operations.

The new fine chemical plant was started in July, 1959, and completed in November, 1961. The two-story, H-shaped structure, contains a total of 105,000 square feet and measures 336 feet in length by 192 feet wide.

Parke-Davis facilities at Holland are under the direction of plant superintendent Donald J. Vink. Earl L. VanHouse supervises production in the new chemical building. While W. F. Roser is in charge of chemical operations at the original installations.

Pesticide Research Goal: Find Less Toxic Chemicals

Research into the action of pesticide chemicals should be started with the aim of finding effective but less toxic chemicals than those now used, argues an independent committee set up in Britain to advise the government on the effects of agricultural chemicals on consumer health.

In general, though with some exceptions for birds, the committee finds little evidence of ill effects from farm chemicals on consumers, farm workers or wild life.

Other studies recommended include more effort on hazards to workers and the problem of pesticide residues in imported and domestically-produced foods.

Food, Drug, Cosmetic Act Also Covers Toys, FDA Says

Food & Drug Administration is cautioning toy manufacturers and dealers that toys containing a food, cosmetic or drug are subject to regulation under the federal food, drug and cosmetic act. The statement was made last week in connection with a seizure of "Kay Stanley's" toy cake-mix set.

FDA charges that a packet of frosting mix in the cake mix set, made by Plastic Block City, Inc., Chicago, contained FD&C Red No. 1, a color which was banned last year for use in food or in drugs or cosmetics which may be swallowed. Tests had shown the color to cause injury to test animals when ingested in quantity over a period of time.

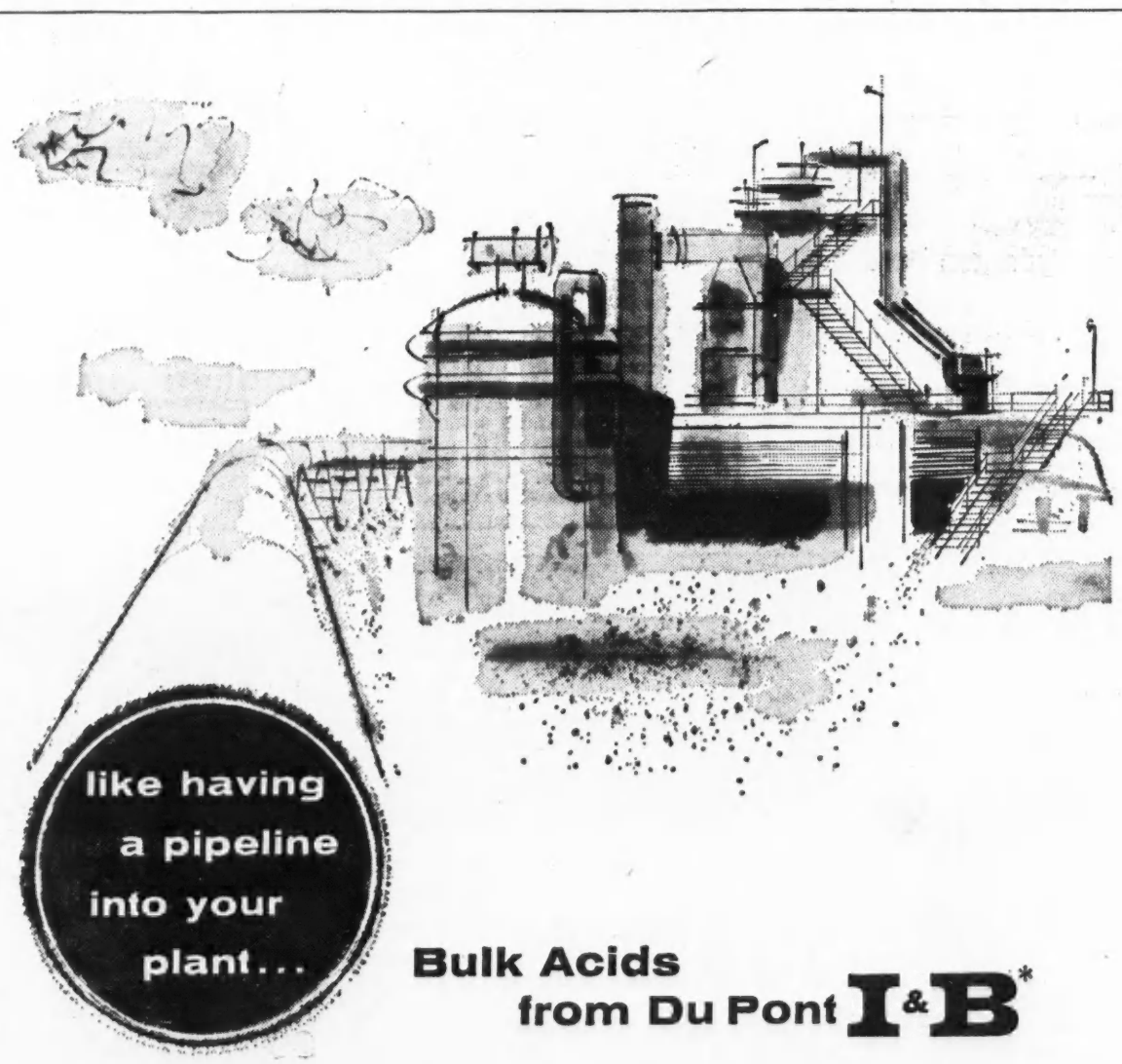
Pierce & Stevens Buying Adhesives, Coatings Firm

Pierce & Stevens Chemical Coporation, Buffalo, N.Y., says it has contracted to buy for 40,000 shares of stock and Pyroxylin Products, Inc., Chicago, producer of adhesives and coatings.

The Buffalo company produces adhesives and protective finishes for the packaging and graphic arts industries. Sales of Pyroxylin Products exceed $3 million a year, Pierce & Stevens says.

Prior Advances Lewis

Prior Chemical Corporation, New York, has elected Lester C. Lewis as a director and executive vice-president of the corporation.



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Fatty Acids for Additives Get Provisional FDA Okay

Producers of fatty acids can continue the marketing of their products for use as food and feed additives—that is, just so long as they can show them to be free of the chick-edema factor under a formula devised and put into effect by Food & Drug Administration.

Two rulings clearing fatty acids, salts of fatty acids and methyl esters of higher fatty acids, for use in foods and animal feeds under the food additives law, were issued December 9 by the agency. The rulings were in conjunction with an algebraic formula for determining the unlawful presence of the chick-edema factor.

The rulings were issued on the basis of data filed with the agency by Emery Industries Inc., Cincinnati, Ohio, in the case of methyl esters of higher fatty acids to be used in animal feeds, and by the Fatty Acid Producers' Council, New York, in the case of fatty acids and salts for use in foods.

The chick-edema factor is to be determined in both instances by the bioassay method described in the *Journal* of the Association of Official Agricutural Chemists, volume 44 (1961), and its presence in the fatty acid is to be determined by a comparison between the mean log of the pericardial fluid volumes of a test group and a concurrent negative control group.

The significance of the difference in the pericardial fluid volumes between the two groups is then to be arrived at by an algebraic formula set out in FDA's two clearance orders.

NCG Division Starts Up New Air Separation Plant

A new air separation plant with capacity to produce 120 tons a day of oxygen, nitrogen and argon has been placed in operation at Dallas, Tex., by the NCG Division of Chemetron Corporation.

Total cost of the facility, which is producing both liquid and gaseous products, is reported at $1 million.

Large quantities of high-purity gaseous nitrogen will be piped to the adjacent plant of Texas Instruments, Inc., for use in the manufacture of semiconductor devices. The gases, used for a variety of industrial and medical purposes, will be transported from this location to points throughout the southwest.

Census Bureau Reports

Continued from Page 5

annual survey, the Census of Manufactures taken every five years, and the biennial censuses, are mandatory.

The Supreme Court's decision was handed down in a case brought against the St. Regis Company by FTC. The company is under investigation for possible antitrust law violations because of its merger activity in the '50's.

Among the data called for by FTC were copies of the reports submitted by St. Regis in confidence to the Census Bureau in connection with various censuses.

In deciding the issue, the Supreme Court followed the literal construction of the law. It said that President Hoover's proclamation, made when the law was enacted in 1932 was beside the point. At that time, the President had said that companies need have no fear that disclosure would be made beyond the needs of the Census Bureau, that company reports would be stamped "confidential" in the bureau, and that the bureau would return a copy of the reporting form to the company marked "keep this copy for your files."

Doubts the Claimed Meaning

"We do not believe that the language of the President gives the statute the meaning claimed for it; nor can the legend on the Census Bureau forms or its advice to reporting companies extend the coverage of the act," Justice Tom Clark said for the majority.

"We fully realize the importance to the public of the submission of free and full reports to the Census Bureau, but we cannot rewrite the Census act.

"It does not require petitioner (St. Regis) to keep a copy of its report nor does it grant copies of the report not in the hands of the Census Bureau an immunity from legal process.

"Ours is the duty to avoid a construction that will suppress otherwise competent evidence unless the statute, strictly construed, requires such a result. That this statute does not do.

"Congress did not prohibit the use of the reports *per se* but merely restricted their use while in the hands of those persons receiving them, i.e., the government officials."

For the minority, Justice Hugo Black said: "Our government should not, by picayunish haggling over the scope of its promise, permit one of its arms to do that which by any fair construction the government has given its word that no arm will do.

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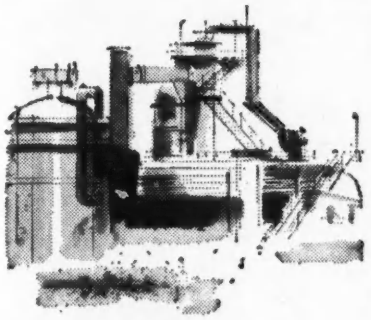

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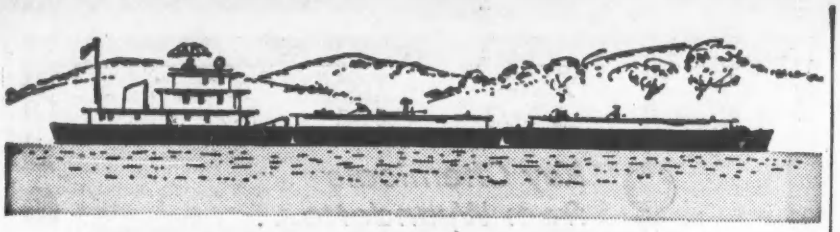

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OPD Reports

Chemical Men Worry

Continued from Page 7

crease in group volume for the first ten months, but aluminum production in the same period is up 22 percent over 1960.

For the chemical side of the business, Pechiney notes that deliveries have been curbed by vigorous competition, especially on the French domestic market.

For all of 1960 Pechiney reported sales up nearly 22 percent to $196 million, with aluminum up only 12 percent to $100 million and chemicals up about 25 percent to $93.5 million. Pechiney brought into operation a significant boost to its aluminum capacity in the last half of 1960.

Germany, UK Particularly Hard Hit

Nowhere is the slowdown more marked than in West Germany and Britain. Farbenfabriken Bayer AG expects 1961 to be up 7 percent over 1960 to about $750 million for the parent company, with group volume up about 10 percent to $900 million. For 1960 its gain was 14.6 percent and the jump in 1959 was over 20 percent.

Bayer reports its prices are down an average 3-4 percent in 1961, with the additional effect in exports of the 5 percent upward revaluation of the Deutsch Mark in the spring.

Badische Anilin & Soda Fabrik AG, the third major chemical firm in Germany, has cut back its capital spending program to keep expansion in line with the actual growth of markets. BASF, which is also concentrating on increasing its efficiency and cutting costs, expects 1961 sales to equal last year's $650 million.

Imperial Chemioal Industries, Ltd., of Britain—Europe's largest company and the second ranking firm in the world behind E. I. duPont de Nemours & Co. for 1960, just nudging past Union Carbide Corporation—is the only big chemical company in Europe to report an actual sales decrease for 1961 so far.

ICI sales in the first half were off $2.8 million to $804 million, with net profits dropping more dramatically to $55.2 million from $72 million.

In a recent statement to ICI employees, S. P. Chambers, chairman, discussed the difficult operating conditions of the first half of the year without any indication that there has been an improvement in the second half.

Distillers Company, Ltd., UK whisky, gin, chemicals and plastics group, reports a slight increase in profits for the six months ended September 30, with satisfactory results from its spirits business.

But profit margins in the chemical business, Distillers says, have been slashed by "exceptional competition from overseas."

Chemical Club of Phila. Picks Shea for President

Frank J. Shea, of Kessler Chemical Company, has been elected president of the Chemical Club of Philadelphia.

Other officers just chosen are: First vice-president, Charles T. Korndoerfer, Pioneer Salt Company; second vice-president, A. Carter Fergusson, Alex. C. Fergusson Company; treasurer, Joseph C. Widua, Dow Chemical Company; secretary, Jack A. Adams, Calgon, Inc., and corresponding secretary, Martin G. Levens, Pittsburgh Plate Glass Company.

CMRA Plans to Consider Basics of Market Research

"Fundamentals of Chemical Marketing Research" will be the topic for the February meeting of the Chemical Market Research Association, scheduled for the Warwick hotel, Philadelphia, February 1 and 2.

Highlights of the program will be presentations on "What Management Expects From Chemical Marketing Research," "Selling a New Project to Your Management," and "Chemistry of the Future."

Maleic Anhydride Set

Continued from Page 5

at the Houston plant complex of Petro-Tex for the production of fumaric acid, which will be available for commercial shipments shortly after the first of the year. FMC says it will sell the fumaric in bags and drums.

Completion of the maleic plant caps a program launched several years ago by Petro-Tex to find a method of producing the material by direct oxidation of butylenes.

Competing producers are not particularly happy to see Petro-Tex put up a plant—reported to have a 30-million-pound-a-year capacity—in an already crowded business. According to one estimate, next year will see about 260 million pounds of maleic potential, but not until 1965 will there be demand for a mere 120 million pounds.

Petro-Tex is willing to enter the maleic anhydride field despite the lopsided demand-capacity picture, because it feels the edge can be gained through process economics. Its feedstock prices are reportedly well below the cost of benzene.

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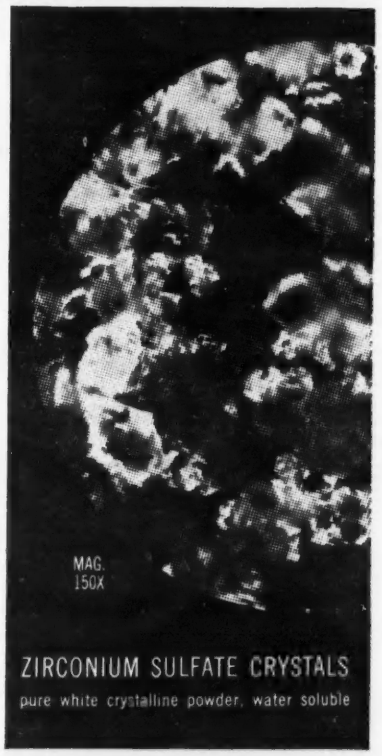

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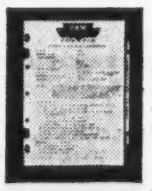

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Petroleum Derivatives

Benzene is in the spotlight this week. Rumors are circulating that another price cut may be in the offing. No two producers agree as to if and when the cut will come, or how much it will amount to if it does come, but a good many corroborate the rumor that certain attempts are being made to drive the price down. The immediate reason for speculating that a price adjustment might be in the making was last week's 1½-to-1¾-cents-per-pound reduction of phenol.

With the phenol price down, speculation was made in certain quarters that the benzene price would follow. Historically, the price spread that normally exists between phenol and benzene would necessitate a rather large benzene reduction if the latter were to keep pace with the new phenol price.

There were, however, more substantial reasons for all the speculation. Boiled down, they amount to this: Reports have it that a large shipment of benzene (whether domestic or imported is uncertain) suddenly found itself without a buyer. The shipment, coming under the category of "distressed merchandise," was sold on the spot to a large domestic consumer for 26 cents per gallon, considerably below the established 31-cents-per-gallon price.

At first it was felt that agitation on the part of other consumers for 26-cent benzene would follow. However, it is pointed out that distressed merchandise, selling below the established level, is not an infrequent occurrence. With this in mind, agitation for a lower price on the basis of this single instance would be unwarranted, say trade sources.

Vaguer rumors of benzene selling in other instances for 27 cents per gallon are unconfirmed. Sizable quantities of Russian benzene were reportedly sold in November for 27 cents per gallon, f.o.b. Port Arthur, Tex.

By the end of the week, things were reported to have simmered down somewhat. This, however, does not preclude future developments.

In other areas of the market, toluene is said to be moving at 25 cents per gallon, delivered, in most of the area east of the Rockies. Most producers are meeting the 25-cent-delivered price where they can afford it.

A sidelight on the present benzene-toluene situation reveals that a good many producers would be in a very uncomfortable predicament in the event benzene prices fall. Should the price gap between benzene and toluene narrow much more, manufacturers whose production is geared to the "Hydeal" process for the conversion of toluene into benzene, would be left in a very tight squeeze. Their profit margin would be virtually negligible.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
104.13	104.13	104.13	103.74

For Current Prices See Page 9

Aromatics

Benzene—Rumors of a price cut in the offing are being bruited about. Reports vary as to when and if it will come, and how much it will be if it does. Prices at the end of the week held firm, however. The situation is reported as having simmered down somewhat.

Some observers feel a reduction is imminent sooner or later, but do not think it will come about in the immediate future. Current benzene capacity is running about 140 million gallons in excess of last year's 710-million-gallon estimated capacity.

Toluene—Toluene price is pretty well established at 25c. per gallon delivered east of the Rockies, trade sources report. The price, ½c. below former schedules, has been coming on for some time, ever since it began as a localized situation on the East Coast a month and a half ago.

Crude Oil Stocks Dip

Domestic and foreign crude petroleum stocks at the close of the week ended December 2 were 610,000 bbls. lower than at the end of the preceding week.

Week ended December 2—248,190,000 bbls.

Preceding week—248,800,000 bbls.

This comprises an increase of 1,674,000 bbls. in stocks of domestic crude and a decrease of 2,284,000 bbls. of foreign crude.

(Source: Bureau of Mines)

LPG's and LRG's

Exports of liquefied petroleum gases (fuel type) in October are set at 338,653 barrels by the Bureau of Census. Total estimated value was $1,469,423. The burden of the shipments were to Latin America, with Mexico accounting for 220,321 barrels, and Argentina 63,551 barrels.

These figures are a considerable increase over those of October a year ago. October 1960 saw a mere 244,102 barrels valued at $1,057,139 sent out of the country. Mexico and Argentina took the major part of the exports in 1960 as well.

Waxes

Microcrystalline wax exports in October are estimated by the Bureau of Census at 4,578,948 pounds, a total value of $588,245. No significant change is noted from the 4,522,937 pounds exported in October 1960.

Paraffin wax exports are down considerably from October a year ago. Only 10,343,800 pounds of the fully refined crystalline grade were shipped out of the country in October, as compared with 13,241,668 pounds a year ago. West Germany was the big consumer in both instances.

Crystalline grades of paraffin wax other than the fully refined type are down even moreso from last October—12,039,221 pounds valued at $668,329 as compared with last October's 18,760,094 pounds valued at $1,101,818. The bulk of shipments in both cases were to Korea, Mexico, Colombia and Canada.

The statistics lend credence to the complaint recently voiced by wax exporters that foreign competition (notably Japanese) and encroachment by plastics coatings are cutting into their trade.

Miscellaneous Materials

Petrolatums—Exports of petrolatums and petroleum jelly for October show a sizable decrease from the same figures for 1960. The 4,578,948 pounds of material, valued at $402,979 by the Bureau of Census, compare rather unfavorably with the 6,085,172 pounds (valued at $472,541) shipped out of US ports in the same month a year ago.

White Mineral Oils—Exports remain about the same as those of a year ago. Of the 7,669 gallons sent abroad in October according to the Census Bureau, almost 5,000 gallons were destined for Latin America, Chile and Nicaragua being the largest consumers.

Petroleum Briefs

CONNALLY ACT AMENDED: Final approval of changes in the Connally "Hot Oil" act regulations which simplify reporting and record-keeping requirements is announced by the Department of the Interior.

The new regulations, effective the first of the year, adopt new reporting forms for use by petroleum producers subject to the reporting requirements of the act. Producers in Texas, Louisiana and New Mexico are affected.

PUBLIC LANDS OPENED: Two hundred acres of public land in Mississippi and Louisiana are being opened during December to competitive oil and gas leasing, the Department of the Interior announces. The lands lie within the boundaries of geologic structures which contain productive oil or gas wells.

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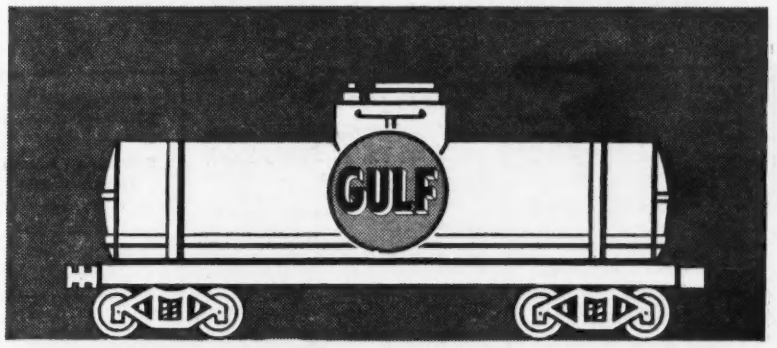

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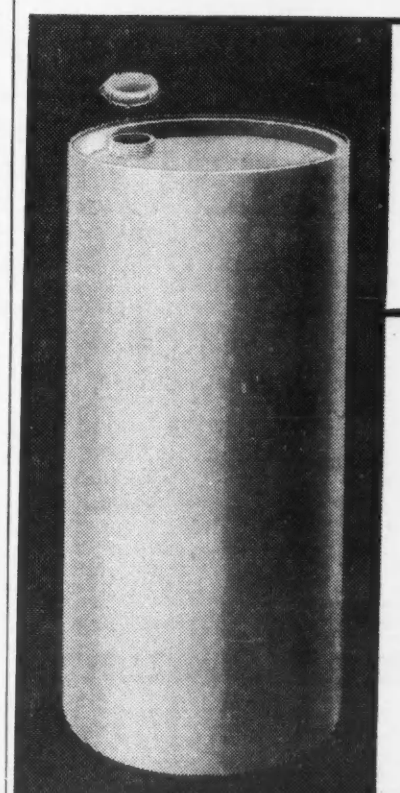

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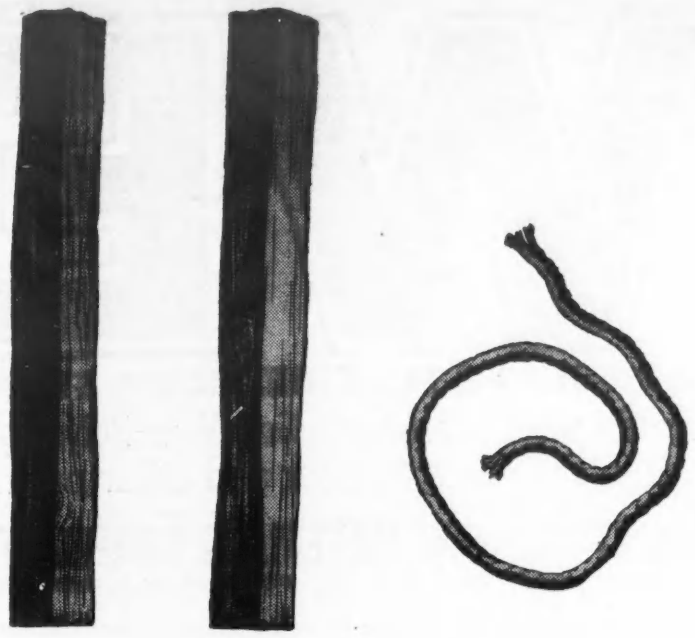

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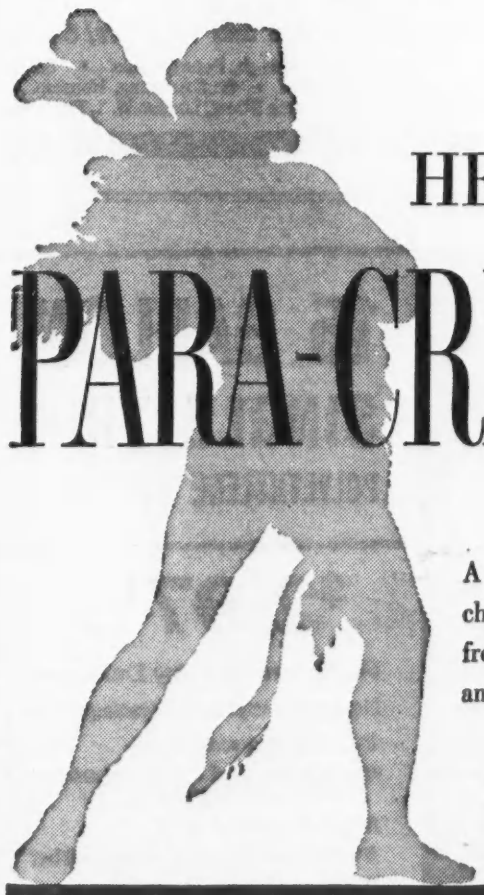

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Coal Chemicals

Japanese Partly Successful in Winning Price Cut From Orthoxylene Makers

Japanese phthalic producers have partially succeeded in driving down the price of imported US o-xylene. Contract price had been $105 a metric ton, f.o.b. Gulf ports. Now some US producers have agreed to ship for $93 a metric ton. At last report, however, at least two US suppliers were still clinging to the $105 price. None of the producers are happy about the turn of events. As elsewhere, over-supply of phthalic has plagued Japan this year. Producers there have been forced to lower prices in the Japanese domestic market and in the traditional export areas of Australia and Southeast Asia

Using this situation as one argument in order to pressure US o-xylene makers for a lower raw material cost, the Japanese offered as a further wedge the rising world naphthalene capacity and expected lower naphthalene prices.

What gave further emphasis to Japanese demands is the fact that export trade is the life's blood of o-xylene marketing. And Japan is the leading customer for US o-xylene.

Japan buys some 80,000 metric tons (176 million pounds) yearly from the US to supply a native phthalic capacity of 75,000 metric tons (165 million pounds). Japanese o-xylene production is of insignificant quantity.

January 1 Price Advances

o-Cresol, 1c. per lb.
N,N-Diethyl-m-Toluidine, 9c. per lb.
Ethylbenzene, ½c. per lb.*
N-Ethyl-m-Toluidine, 12c. per lb.
Styrene monomer, tech., 3 100c. per lb.
m-Toluidine, 8c. per lb.

* One producer.

Augmenting phthalic raw material supply is the 30,000 metric tons (66 million pounds) of crude naphthalene turned out by Japan annually. About 20,000 metric tons (44 million pounds) is diverted to phthalic production.

Only Italy rivals Japan in US o-xylene trade.

Exports to Italy from the US are estimated at 70,000 to 75,000 metric tons annually (154 million to 165 million pounds).

Together, Japan and Italy buy well over half of the US's rated o-xylene capacity of 627 million pounds.

While both countries make phthalic primarily via the ortho route, Italy has been known to switch over to naphthalene whenever supplies were available.

With all this in mind some US producers finally acceded to Japanese requests for a lower o-xylene cost, albeit reluctantly.

The US suppliers' stand for maintaining the $105 a ton price was, and is, basically as follows. In 1959 and 1960, when most of the export o-xylene contracts were initially negotiated, naphthalene-hungry phthalic producers were paying 15 cents a pound for naphthalene and glad to get it.

Sensing the need, US producers made heavy capital expansions and began producing o-xylene, a phthalic raw material whose supply is not tied to the ups and downs of the cokeoven industry.

Although reported in some instances to be not as efficient as naphthalene, o-xylene's lower price (then about 5 to 6 cents a pound) made it quite attractive. Japanese phthalic interests signed long-term contracts in 1959 and 1960, which have since been renegotiated for greater volume.

Now, producers say, the cut in the export price substantially reduces their profit margin as amortization costs for the o-xylene facilities are still unpaid.

In effect the cut from $105 a ton to $93 a ton brings the f.o.b. price down from a little over 4¾ cents a pound to a shade over 4 1/5 cents a pound. Domestic US price is officially quoted by one producer at 6½ cents a pound although others reveal sales at 35 cents a gallon, or 4.8 cents a pound, and some trade sources indicate sales are being made at even lower prices.

The differential between the new low export price and domestic US price is about one-half cent a pound. As yet, the break in the export price to Japan has not brought about a reduction in the US domestic o-xylene price.

However, sales to Italy are reported now to be below $105 a ton, but not as low as the $93 a ton in effect for some sales to Japan.

Price Trends

Advanced

None

Reduced

Phenol, syn., USP, 1¾c. per lb.
nat., 39°C. 1¾c. per lb., 82-84%, and 90-92%, 1½c. per lb.
o-Toluidine, 1c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
119.72	119.84	119.86	117.56

For Current Prices See Page 9

Basic Products

Steel production bounded forward 4.1 percent in the week ended December 9, marking the greatest advance in over a year and a half.

Output for the week was 2,158,000 net tons as compared with 2,073,000 tons for the previous week.

Based on assumed 1961 steel capacity, rate of production for the week was 74.8 percent.

Production for the year through December 9 was 91,111,000 tons, down 3.7 percent from the 94,598,000 tons turned out in the comparable 49 week period of 1960.

December steel orders are reported to be heavy. With this upsurge the industry stands a good chance of at least matching last year's total production.

Benzene — Rumors rippled around the industry last week of a price cut in benzene. But, by week's end the reports appeared to be a false alarm.

What happened apparently was that a major chemical company was able to secure a distress lot of benzene in the Gulf for 26c. a gallon. Some sources reported the material was of Russian origin while others in the trade claimed the benzene was from a cancelled export deal.

In any case the sale of the 26c. benzene was used as an argument in an attempt to drive down benzene prices in general according to observers. The maneuver

Cokeoven Output: October

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

	October 1961	*October* 1960	*First Ten Months* 1961	*First Ten Months* 1960
Benzene, nitration	8,294,731	6,439,500	67,821,470	87,340,300
Industrial, pure	3,130,283	1,965,400	26,329,697	28,945,500
Industrial 90 and other	101,318	142,100	1,240,510	1,600,500
Coaltar, crude	61,366,192	47,727,600	510,521,762	599,619,500
Chemical oil crude (tar acid oil)	2,535,961	1,825,700	23,204,775	24,384,600
Solvent naphtha, crude and refined	447,413	384,500	3,724,481	4,024,900
Toluene, nitration	2,219,997	1,654,200	18,952,113	20,670,300
Industrial, pure	504,725	557,800	4,178,014	5,420,300
Xylene, all grades	807,336	595,800	6,382,303	6,970,000

Coal Chemicals

failed, however, and late last week producers were still officially quoting the 31c. a gallon contract price.

Creosote—A major producer has supplied creosote consumption figures for 1957-1960 to augment production and sales statistics printed in this space two weeks ago.

While sales amounted to 119 million gallons in 1957 actual consumption was 179.2 million gallons. By 1960 sales totaled 87 million gallons with consumption figured at 139.2 million gallons.

In the intervening years consumption was: 1958—147.4 million gallons and 1959—134.1 million gallons.

Ethylbenzene — A major producer last week announced a ½c.-a-pound increase across the board for ethylbenzene.

New prices, to take effect January 1, 1962, are: tankcars, 12c. a pound, f.o.b.; carlots, 14½c. a pound, same basis, and less than carlot amounts, 16½c. a pound, same basis.

Another major producer when contacted last week reported the intention of maintaining prices at the company's current level of 10c. a pound in tankcars, 14c. a pound in carlots and 16c. a pound in less than carlot amounts.

Ethylbenzene is an intermediate in the production of styrene monomer.

Phenol—A major producer last week reduced the price of synthetic phenol 1¾c. a pound.

New price for synthetic phenol is: tankcars, 14½c.; drums, carlots, 16½c. a pound and less than carlot shipments, 18½c. a pound.

Natural phenol prices also tumbled after the initial break in synthetic.

One of the first producers of natural phenol to announce decreases pegged the drop at 1¼c. for all natural grades except 39°C. which was lowered 1½c.

Another major producer, however, cut natural phenol prices a further ¼c.

By Friday not all producers had officially met the 1¾c. and 1½c. cut, but most indicated they would probably do so shortly.

The new low prices therefore make the natural phenol price schedule to read: 39°C, tanks, 14c.; carlots, non-returnable drums, 16c., and less than carlot amounts, 17c. 82-84%, tankcars, 12¾c.; carlots, non-returnable drums, 14¾c., and less than carlots, 15¾c. 90-92%, tankcars, 13c.; carlots, non-returnable drums, 15c.; and less than carlots, 16c.

Phenol prices have undergone three decreases this year amounting to a total decline of 3c. per pound in all.

Naphthalene—Imports amounted to 6,060,416 pounds in October, a decrease of 3.7 million pounds from September arrivals.

Shipments were received from:

Poland—1,341,136 pounds valued at $86,559 arrived in Philadelphia and New York. Average per pound—6c.

Belgium—1,074,223 pounds valued at $87,134 arrived in Boston, New York and Philadelphia. Average price per pound—8.1c.

W. Germany—992,158 pounds valued at $83,484 arrived in Boston, New York and Philadelphia. Average price per pound—8.4c.

UK—917,317 pounds valued at $64,222 arrived in New York and Boston. Average price per pound—7c.

Netherlands—661,492 pounds valued at $63,849 arrived in Boston and New York. Average price per pound—10.3c.

Yugoslavia—286,601 pounds valued at $44,710 arrived in New York. Average price per pound—15.6c.

Canada—256,683 pounds valued at $11,103 arrived in Buffalo and Detroit. Average price per pound—4.3c.

Italy—216,254 pounds valued at $33,736 arrived in New York Average price per pound—15.6c.

France—198,414 pounds valued at $8,963 arrived in Boston and New York. Average price per pound—4.5c.

Hungary—116,139 pounds valued at $9,002 arrived in Philadelphia. Average price per pound—7.7c.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended Decmeber 9, were as follows:

Ammonia liquor	lbs.	645,789
Ammonium sulfate	lbs.	27,478,051
Benzene	gals.	2,971,516
Coaltar	gals.	14,938,422
Crude chemical oil	gals.	584,864
Solvent naphtha	gals.	97,477
Toluene	gals.	657,972
Xylene	gals.	182,760

Intermediates

N,N-Diethyl-m-Toluidine — Effective January 1, 1962, a major chemical company is advancing the price of this intermediate 9c. a pound.

New price will be: tankcars, 95c. a pound; drums, carlots, 96c. a pound, and drums, less than carlots, 97c. a pound.

N-Ethyl-m-Toluidine—From the current price of 84c. an increase of 12c a pound will be made January 1. New schedule will read: tankcars, 96c. a pound; drums, carlots, 97c. a pound, and drums, less than carlots, 98c. a pound.

Styrene Monomer—Under the quarterly escalation clause provisions, styrene price for tankcar shipments will move up 3/100c. per pound on January 1 to 11.06c. for the first quarter of 1962.

m-Toluidine—An 8c.-a-pound advance will take effect January 1, 1962. Tankcar sales will be at 90c. a pound; drums, carlots at 91c. a pound, and drums, less than carlots, at 92c. a pound.

o-Toluidine—A 1c.-a-pound reduction in the price of o-toluidine was made effective last week. New schedule reads: tankcars, 24c.; drums, carlots, 26c. a pound, and drums, less than carlots, 27c. a pound.

Shipping terms for the foregoing toluidine derivatives are on a freight allowed basis.

Coal Chemical Briefs

GREECE SEEKS ZINEB BIDS: The Greek government is inviting bids on 1,250 tons of ethylene bisdithiocarbamate, 72-75 percent wettable powder, packed in suitable 1 kilogram containers or less. Shipments should start by the end of February, 1962 according to Bureau of International Business Operations, Department of Commerce.

Bids on the ZINEB shipment, tender No. 14156, should reach the National Tobacco Board, 9 Amerikis St., Athens, by January 4, 1962.

Korean Fertilizer Contract

Continued from Page 3

gram, covering urea and ammonium sulfate, had been in dispute for a number of weeks, it will be recalled, when Mutual Aid officials attempted to cancel out this part of the bidding after learning that the materials could be purchased cheaper from Japan than from American suppliers.

Subsequent protests from industry and members of the senate and house led to this action being rescinded by Fowler Hamilton, head of the Agency for International Development, and a decision to stand by the original terms of the bid invitation.

Bids opened in November by Pakistan for the purchase of about 60,000 tons of urea with AID funds are now being reviewed by the agency for awarding of contracts. Because several American suppliers participated in the bidding, which was on a world-wide basis, officials are studying the prices offered in the light of the "Buy American" clause of the Mutual Aid law.

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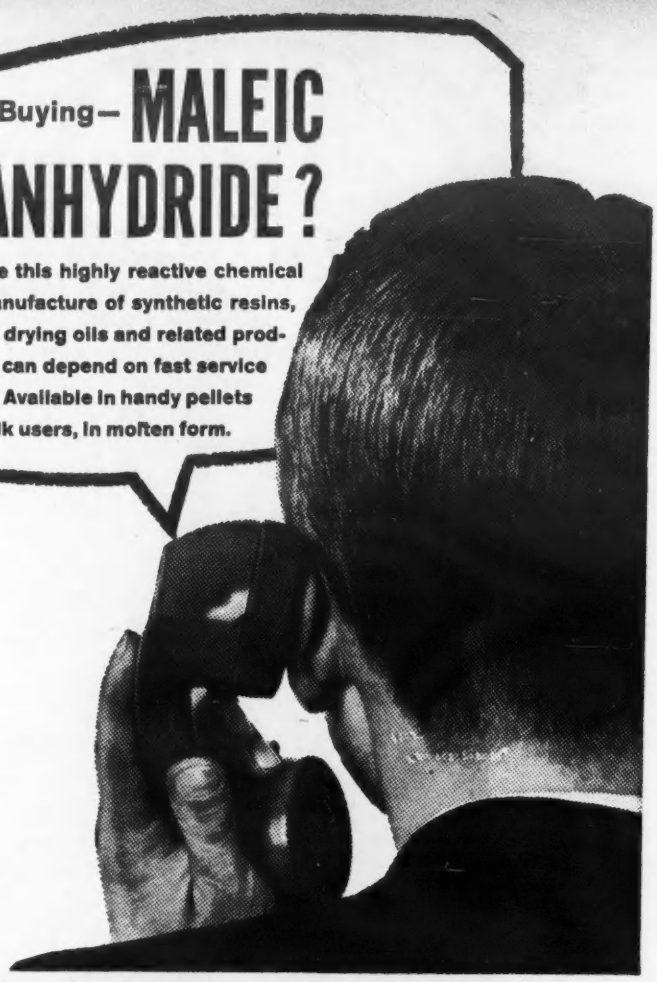

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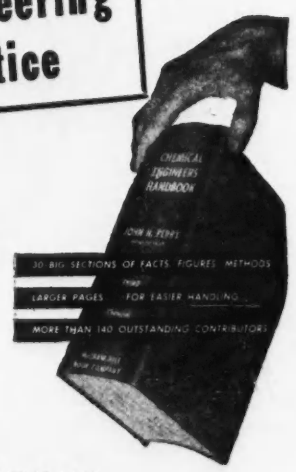
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Drugs, Fine Chemicals

Zinc oxide USP will be advanced ½ cent, to 16¾ cents a pound for a carload of 100-pound drums, on Wednesday (December 20). The increase follows an equivalent hike in the price of prime metal last fortnight. Trending higher also are silver salts but due to the fluctuations in bullion prices in the wake of Treasury Department's cessation of sales, a hard and fast schedule on these chemicals is hard to come by. In fact, if congress passes legislation making silver, in effect, a free market, the salts will necessarily be traded like commodities.

One supplier said last week that its prices are determined today not only by the size of the order but by the date of shipment as well. He said his firm was not listing silver nitrate at 73¾ cents an ounce for 20,000-ounce quantities, a new quote reported on Wednesday (December 13).

Market for urethane USP (ethyl carbamate) has become increasingly competitive. Reasons: Large volume, low-priced imports; adequate if not excess domestic capacity, and limited growth in requirements.

Not aggressively seeking business, one manufacturer is quoting urethane at long-established prices of 65 cents and 70 cents a pound, while a second has dropped quotations to 40 cents and 41½ cents a pound for truckload and less than truckload lots, respectively.

Prices on ammonium thioglycolate and thioglycolic acid—both are quoted at $1.15 a pound on a 100 percent acid basis — are unchanged but trade sources note the competitive situation. Figuring in this are recent offerings of foreign product, but prices on this material are not sufficiently low or the quantity large enough to create a real market disturbance.

Several firms and individuals are on record as opposing Food & Drug Administration's recent proposal to permit over-the-counter sales of piperazine, used in the treatment of pinworms and roundworms. They argue that lay diagnosis for use of the drug would be practically impossible, leaving the dosage requirement to chance dangerous.

Ammonium Thioglycolate—Market for ammonium thioglycolate, used in hair waving lotions, is reported to be competitive but large, routine requirements are apparently steadying prices at existing levels. On a 100 percent acid basis, the quote is $1.15 a pound.

There are reports that some imported material is being offered here, but at the moment at least the foreign product, priced at about the same level as the domestic, is not adding greatly to the competitive situation.

Sources say that practically all thioglycolic acid is manufactured today using sodium hydrosulfite as a raw material in place of thiourea, although sellers of the latter continue to solicit the trade for business.

Thiourea had been used earlier but as far back as ten years ago, the switch to sodium hydrosulfite began. On a pound-for-pound basis, less thiourea is required in the manufacturing process but this advantage is outweighed reportedly by the lower price (about 6c. a pound) on sodium hydrosulfite. Thiourea is currently quoted at 28½c. a pound in carload quantities (see page 57).

Gelatin—Going into November, gelatin producers held stocks totaling 15,718,000 pounds. This compared with inventories of 15,090,000 pounds thirty days earlier and 11,260,000 pounds a year earlier.

Production of gelatin in October was 5,234,000 pounds, exceeding that of both the preceding month (4,763,000 pounds) and October 1960 (5,106,000). As to type, output was, in thousands of pounds: edible 3,692; technical 339; pharmaceutical 193; photographic 812.

Shipments, moving in a counter trend, dropped to 4,606,000 pounds in October from 5,064,000 in September and 4,629,000 in October 1960. By type, shipments were, in thousands of pounds: edible 3,550; technical 211; pharmaceutical 193; photographic 652.

Stocks remaining in producers' warehouses at the end of October broke down this way, in thousands of pounds: edible 9,208; technical 1,085; pharmaceutical 1,973; photographic 3,452.

Statistics were prepared by the Bureau of the Census from reports submitted by all known manufacturers.

Iodine—Imports of crude iodine rose to 321,735 pounds in October from 234,552 pounds in September. Chile accounted for 204,050 pounds, valued at $202,696, and Japan supplied the remainder (117,685 pounds, valued at $115,651).

There has been no change in the quoted price of $1.10 a pound, nor is any indicated in the immediate future.

Menthol—Price weakness persists, according to recent indications, on Brazilian menthol. A possible factor in this is the greater amount of material coming in from Taiwan. As noted in the statistics below, Taiwan's October shipment here was 13 percent of the total received.

Imports of natural menthol in October totaled 70,747 pounds, valued at $413,569 and dutied at $24,762. Bulk of this material came, as is customary, from Brazil (52,022 pounds, valued at $293,518 and dutied at $18,208).

Others on the shippers' roster: Taiwan 9,270 pounds, valued at $60,060 and dutied at $3,402; Japan 4,500 pounds, valued at $35,865 and dutied at $1,575; West Germany 2,300 pounds, valued at $11,340 and dutied at $805; and Spain 2,205 pounds, valued at $12,786 and dutied at $772.

October imports of synthetic menthol amounted to 21,692 pounds, valued at $102,301 and dutied at $7,593. Shipping here were: France 12,500 pounds, valued at $49,268 and dutied at $4,375; Spain 7,192 pounds, valued at $46,531 and dutied at $2,518; and West Germany 2,000 pounds, valued at $6,502 and dutied at $700.

Piperazine—Food & Drug Administration's recent proposal to permit over-the-counter sales of piperazine has stirred up considerable opposition. Generally, the argument is that lay diagnosis for use of the drug would be practically impossible and that leaving the dosage requirement

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
58.60	58.60	58.89	59.27

For Current Prices See Page 9

Drugs and Fine Chemicals Imports: October

Imports of selected drugs and fine chemicals for September and October, 1961, as reported by the Bureau of Census, were as follows:

		October	September
Ascorbic acid	lbs.	17,084	10,300
Caffeine	lbs.	165,080	128,046
Camphor, crude	lbs.	0	0
Refined	lbs.	11,500	30,200
Synthetic	lbs.	61,000	121,400
Iodine crude	lbs.	321,735	234,552
Menthol:			
Natural	lbs.	70,747	92,837
Synthetic	lbs.	21,692	5,382
Pyridoxine	lbs.	0	418
Quinidine and salts	lbs.	109,255	61,036
Saccharin	lbs.	22,015	16,102
Sodium alginate	lbs.	41,040	18,700
Tartaric acid and anhydride	lbs.	265,472	402,909
Thiamine	lbs.	4,023	5,366
Theobromine	lbs.	6,400	16,223
Vitamins and vitasterols, n.e.c.	lbs.	40,940	125,536

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CYCLOPENTYL BROMIDE B.P. 137-138° C.	Commercial
CYCLOPENTYLPROPIONIC ACID B.P. 130-132° C/12.	Commercial
CYCLOPENTYLPROPIONYL CHLORIDE B.P. 81-82° C/10.	Commercial
CYCLOHEXENE OXIDE B.P. 129-130° C.	Research
2-CARBETHOXYCYCLOHEXANONE	Pilot

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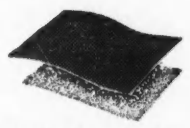

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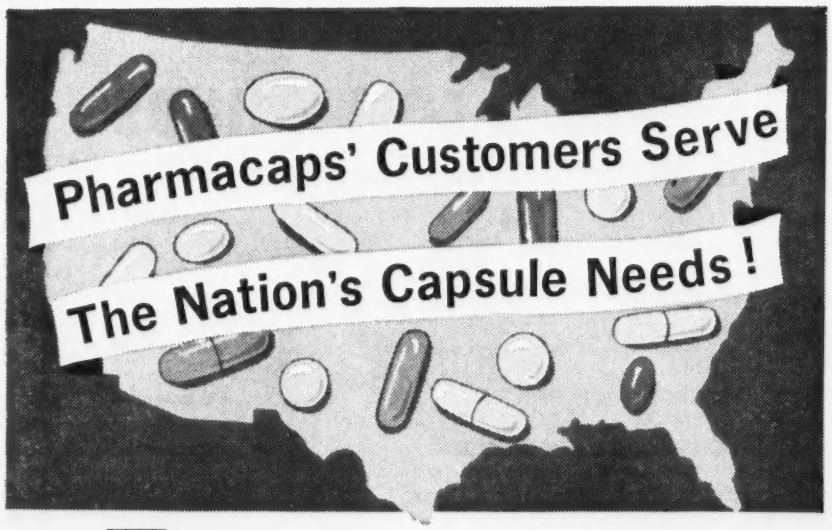

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Drugs, Fine Chemicals

to chance would be dangerous considering possible "serious side effects."

FDA's proposal was published in the *Federal Register* of November 18. Deadline for comments from interested parties is today (December 18).

Piperazine preparations are used in the treatment of pinworms and roundworms.

Saccharin—Imports of saccharin in October, totaling 22,015 pounds, were up appreciably from September (16,102 pounds). The Netherlands accounted for 20,015 pounds, valued at $36,961 and dutied at $7,624, and Japan supplied the remainder.

Although imports are a decided influence on the domestic saccharin market, the more significant factor today is the increasing growth of such non-caloric sweeteners as calcium and sodium cyclamates.

Thiamine—Imports of thiamine in October were 4,023 pounds, down from 5,366 in November. The entire quantity was valued at $31,549 and dutied at $3,311. As usual, Japan was the major shipper, accounting for 3,145 pounds, valued at $25,059 and dutied at $2,630. Denmark supplied the remainder.

While domestic requirements are reported to be running into good volume, there are some indications that domestic competition coupled with that posed by importers is having a a telling effect on prices. Some sales, it's believed, are being made below the $27 a kilo price that is officially quoted.

Urethane—Market for urethane USP (ethyl carbamate) has become increasingly competitive. There are several reasons why. Foremost, perhaps, because of the direct relationship to domestic pricing, is the considerable amount of foreign material being offered here at quotes as low as 30c. a pound.

Secondly, domestic capacity is fully if not more than adequate and, third, demand, which never really approached large volume reportedly, has not grown to any extent in the past year or so.

Lack of demand growth is partially explained by the fact that the manufacture of some tranquilizers is now being started with phosgene, eliminating the intermediary step of ethyl carbamate, a phosgene derivative.

Schedules quoted by domestic makers are understandably at variance. One firm, for example, is quoting urethane today at 40c. a pound in truckloads and 41½c. a pound in less than a truckload, while a second continues to maintain the long-established listings of 65c. and 70c. a pound.

The higher prices maintained by the one maker indicate, perhaps, the firm's disinterest in what is said to be a high-cost, low-profit chemical.

It was not always so, of course. Back in 1956, the price was $1.05 a pound, but the entrance of a new producer at that time caused prices to decline. Currently, the annual requirement is thought to be in the vicinity of 3 million to 5 million pounds.

Zinc Oxide—Quote on zinc oxide USP goes up ½c. a pound on Wednesday (December 20). The advance, which establishes carload prices of 16½c. and 16¾c. a pound, respectively, for 50-pound boxes and 100-pound drums, reflects the higher cost of prime metal, according to the initiator of the action.

Botanicals

Gums—Imports of arabic, tragacanth, karaya and locust bean gums in the first six months of the year were lower than those in the comparable period in 1960.

As reported by Business & Defense Services Administration of the Commerce

Continued on Page 51

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ALTHEA ROOT—10 bgs, Herbarium Inc, Rijeka
ALUMINA, ACTIVATED—10 dms, Rotterdam
ALUMINUM SULFATE—220 bgs, Philipp Bros Chemicals, Bremen
AMMONIUM BICARBONATE—150 dms, Rotterdam
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AMMONIUM CARBONATE—176 dms, Rotterdam
AMMONIUM PERSULFATE—200 dms, Riches Nelson, Rotterdam
ANIMAL CHARCOAL—200 bgs, Riches Nelson, Rotterdam
ANNATTO SEED—300 bgs, Callao
ANTIMONY REGULUS—1,364 cs, Metalchemical Corp, Rijeka
ARABIC GUM—750 bgs, Morningstar Paisley Inc, Port Sudan
350 bgs, Port Sudan
ARSENIC, METALLIC—37 dms, Belmont Smelting & Refining Works, Gothenburg
BEESWAX—84 bgs, Porto Alegre
20 bgs, Callao
33 bgs, Port Au Prince
BENZOCAINE—18 kgs, Gothenburg
BERGAMOT OIL—46 cs, Messina
BOIS DE ROSE OIL—7 dms, Hollander Trading Corp, London
BONE CHARCOAL—210 bgs, Martin Baer & Co, Lisbon
BUTTONLAC—50 bgs, Colony Import & Export Corp, Calcutta
CABREUDA OIL—1 dm, A Chiris Co, Santos
CADMIUM—600 cs, Ore & Chemical Corp, Antwerp
CALCIUM BROMATE—4 dms, Rotterdam
CALCIUM CARBONATE—400 bgs, N H Weitzner, Antwerp
1,300 bgs, Pluess Staufer, Antwerp
CAMPHOR OIL—45 dms, George Uhe Co, Keelung
CARAWAY SEED—200 bgs, Hoger Corp, Rotterdam
100 bgs, Biddle Purchasing Co, Rotterdam
150 bgs, P H Petry, Rotterdam
400 bgs, Rotterdam
CARBON, ACTIVATED—100 bgs, Connor Engineering Corp, London
CARDAMOMS—20 cs, National City Bank, Cochin
20 cs, Fritzsche Bros, Cochin
CARMINE—6 dms, H Kohnstamm & Co, London
CARNAUBA WAX—33 bgs, Schmidt & Pritchard, Fortaleza
111 bgs, S C Johnson & Son, Fortaleza
111 bgs, M Argueso & Co, Fortaleza
100 bgs, Strahl & Pitsch, Salvador
56 bgs, Smith & Nichols, Fortaleza
188 bgs, Smith & Nichols, Parnahiba
125 bgs, Frank B Ross, Parnahiba
188 bgs, Morgan Guaranty Trust Co, Parnahiba
188 bgs, Strahl & Pitsch, Parnahiba
63 bgs, M Hassel & Co, Parnahiba
125 bgs, Parnahiba
CASEIN—500 bgs, Milwaukee Spice Mills, Rotterdam
3,000 bgs, Crawford Kish & Co, Gdynia
500 bgs, International Casein Corp, Gdynia
1,200 bgs, J R Spellacy, Melbourne
129 bgs, F H Paul & Stein Bros, Oslo
1,000 bgs, Buenos Aires
CASSIA—978 bls, Central Indonesian Trading Co, Djakarta
86 bls, M J Golombeck, Djakarta
288 bls, Catz American Co, Djakarta
913 bls, A G Dunn, Djakarta
334 bls, Rotterdam
CASTOR OIL—200 tons, Brazil Oiticica Inc, Fortaleza
200 tons, Pacific Vegetable Oil Corp, Salvador
140 tons, Recife
CELERY SEED—85 bgs, Kellys America Ltd, Bombay
170 bgs, Louis Furth, Bombay
170 bgs, Fritzsche Bros, Bombay
174 bgs, Dodge & Olcott, Bombay
172 bgs, Mincing Trading Corp, Bombay
CHICAGO ACID—20 dms, Kaufman & Vinson, Kobe
CINNAMON BARK—16 bgs, Rotterdam
CINNAMON QUILLS—130 bls, Curacao Trading Co, Colombo
125 bls, Colombo
CITRONELLA OIL—25 dms, Lo Curto & Funk, Puerto Barrios
25 dms, Ungerer & Co, Keelung
25 dms, Giraudan Corp, Keelung
CLAY—600 bgs, Cement Import Co, Hamburg
1,500 bgs, Joseph Dixon Crucible Co, Rotterdam
COCONUT OIL—526 tons, Pacific Vegetable Oil Corp, Manila
500 tons, American Trust Co, Zamboanga
300 tons, Bank of America, Zamboanga
71 tons, Faltek Products Co, Rotterdam
2,293 tons, Manila
COCONUT SHELL CHARCOAL—750 bgs, American Overocean Corp, Kingston
COD OIL—60 tons, Bowring & Co, St Johns
COPAL GUM—60 bgs, Wm H Scheel, Manila
81 bgs, S Winterbourne & Co, Manila
28 bgs, O G Innes Corp, Manila
CORIANDER SEED—300 bgs, K H Landes & Co, Rijeka
100 bgs ,Herbarium Inc, Rijeka
CORN OIL—337 tons, Corn Products Co, Liverpool
127 tons, Corn Products Co, Rotterdam
CORNMINT OIL—5 dms, Mitsui & Co, Santos
10 dms, Lo Curto & Funk, Santos
CORN STARCH—3,200 bgs, Impex Agricultural Corp, Rijeka
448 bgs, Rotterdam
400 bgs, Amsterdam
m-CRESOL—2 dms, Riches Nelson, Hamburg
DEGRAS—30 dms, G E Byford, Antwerp
152 dms, Crystal Extract & Chemical Co, Fremantle
269 dms, Malmstrom Chemical Corp, Fremantle
153 dms, Silvey Shipping Co, Fremantle
91 dms, Robinson Wagner & Co, Sydney
18 dms, H J Meeter Co, Rotterdam
17 dms, Port Adelaide
DEXTRIN—930 bgs, Morningstar Paisley Inc, Rotterdam
850 bgs, Morgan Guaranty Trust Co, Rotterdam
400 bgs, Stein Hall & Co, Rotterdam
300 bgs, Morningstar Paisley Inc, Rotterdam
1,030 bgs, Rotterdam
50 bgs, Amsterdam
DUBOISIA LEAVES—44 bls, A W Fenton, Sydney
EUCALYPTUS OIL—28 dms, Fries Bros, Sydney
FATTY ALCOHOL—436 bgs, Heemsoth Kerner, Copenhagen
FENNEL SEED—20 bgs, K I Litster Co, Bombay
FENUGREEK HYPERESSENCE—1 cs, Lo Curto & Funk, Rotterdam
FENUGREEK SEED—300 bgs, M J Golombeck, Casablanca
500 bgs, S B Penick & Co, Casablanca
FERROUS AMMONIUM SULFATE—3 kgs, City Chemical Corp, Bremen
FISHLIVER OIL—10 dms, Chase Manhattan Bank, Yokohama
20 dms, Mitsubishi Corp, Yokohama
5 dms, Arista Oil Products Corp, Yokohama
4 dms, Yokohama
FISHMEAL—3,261 bgs, N D Cunningham, Callao
1,432 bgs, Chimbote
GALL—1 dm, Wilson Lab, Callao
GELATIN—60 dms, H Bruckmann & Lorbacher, Rotterdam
134 bbls, Riches Nelson, Antwerp
800 bgs, T M Duche & Sons, Antwerp
331 bgs, Manhattan Adhesives Corp, Hamburg
58 bgs, J H Faunce, Buenos Aires
400 bgs, First National Boston, Hamburg
100 dms, Arles Co, Havre
GHATTI GUM—112 bgs, P A Dunkel, Bombay
GLANDS, PITUITARY—2 cs, Van Gelder Fanto Corp, Copenhagen
GLUE—400 bgs, Jung Forwarding Co, Liverpool
GLUTAMIC ACID—16 dms, Rotterdam
d-GLUTAMIC ACID—10 dms, Ajinomoto Co, Yokohama
GLYOXAL—50 dms, Union Carbide Corp, Rotterdam
GUAR GUM—3,376 bgs, Stein Hall & Co, Karachi
600 bgs, T M Duche & Sons, Rotterdam
GYPSUM, CRUDE—9,986 tons, U S Gypsum Co, Hantsport
11,830 tons, Allied Chemical Corp, Halifax
HORNMEAL—900 bgs, Transatlantic Animal By Products Corp, Santos
HYDRAZINE HYDRATE—200 dms, Drew Chemical Corp, Bremen
HYDRAZINE REAGENT—8 cs, Drew Chemical Corp, Bremen
ICHTHAMMOL—25 dms, Chas L Huisking & Co, Hamburg
IRON OXIDE—800 bgs, C B Chrystal Co, Malaga
1,500 bgs, American Chemical & Pigment Co, Malaga
3 cks, O G Innes Corp, Liverpool
850 bgs, Hudson Shipping Co, Osto
JABORANDI LEAVES—265 bls, A W Fenton & Co, Parnahiba
JUNIPER BERRIES—167 bgs, Leghorn
KARAYA GUM—149 bgs, S B Penick & Co, Bombay
60 bgs, Meer Corp, Bombay
240 bgs, Morningstar Paisley Inc, Bombay
KELPMEAL—285 bgs, East Coast Intercontinental Corp, Bremen
KOLA NUTS—200 bgs, D Steengrafe & Co, Kingston
LAVANDIN OIL—8 cs, Lo Curto & Funk, Cannes
10 dms, Charabot & Co, Cannes
LAVENDER OIL—1 cs, Yardley of London, London
LEAD, WHITE—400 bgs, Rotterdam
LEMON OIL—221 cs, Messina
LEMONGRASS OIL—50 dms, Lo Curto & Funk, Puerto Barrios
30 dms, Leonhardt & Brush, Puerto Barrios
30 dms, International Flavors & Fragrances Inc, Cochin
LITHOPONE—700 bgs, Rotterdam
LIVER CONCENTRATE—6 dms, Wilson & Co, Buenos Aires
LIVER POWDER—5 dms, Southampton
20 cs, Rotterdam
LOCUST [illegible] GUM—300 bgs, Portimao
Limassol
100 bgs, Norwalk Mills, Limassol
LOCUST BEAN GUM—300 bgs, Portimao
LOGWOOD EXTRACT—45 dms, American Dyewood Co, Kingston
MAGNESIUM ACID—4 dms, Wyeth International, Havre
MAGNESIUM CARBONATE—50 cs, Antwerp
MANDARIN OIL—4 cs, Messina
MARJORAM—100 bls, Lisbon
MENTHOL—20 cs, Magnus Mabee & Reynard, Keelung
MERC[illegible]0 flks, Leghorn Trading Co, Leghora
METHIONINE—20 dms, Genoa
MONOCHLOROACETIC ACID—100 dms, Wedeman & Godknecht, Bremen
MONOSODIUM GLUTAMATE—[illegible]00 dms, Ajinomoto Co, Yokohama
100 dms, Hudson Shipping Co, Keelung
MONTAN WAX—60 bgs, Hostawax Co, Bremen
MUSTARD SEED—7,700 bgs, R T French, Copenhagen
1,200 bgs, Berns & Koppstein, Copenhagen
1,000 bgs, Schafer Bros, Copenhagen
760 bgs, F J Henjes Jr, Copenhagen
900 bgs, A G Dunn, Copenhagen
500 bgs, Louis Furth, Copenhagen
500 bgs, C M Van Sillevoldt, Copenhagen
500 bgs, D Young, Copenhagen
600 bgs, Interamerican Grain Corp, Copenhagen
500 bgs, J P Anderson & Sons, Copenhagen
400 bgs, F J Henjes Jr, Havre
MYRTILLI LEAVES—10 bls, Herbarium Inc, Rijeka
NAPHTHALENE—1,592 bgs, Ore & Ferro Corp, Rotterdam
250 bgs, Gallard Schlesinger, Antwerp
877 bgs, J N Forker, Liverpool
1,183 bgs, Witco Chemical Co, Liverpool
NUTMEG—140 bgs, K H Landes & Co, Singapore
112 bgs, P H Petry, Hamburg
821 bgs, Rotterdam
NUX VOMICA—300 bgs, S B Penick & Co, Saigon
OITICICA OIL—300 tons, Brazil Oiticica Inc, Fortaleza
OLIVE OIL—484 dms, Uddo & Taormina, Cadiz
292 dms, Seville
203 dms, Malaga
ORANGE OIL, BITTER—2 dms, Citrus & Allied Essential Oils Co, Puerto Plata
ORRIS ROOT—5 bgs, Leghorn
OURICURY WAX—30 bgs, M Schmidt, Salvador
222 bgs, Rotterdam
OXALIC ACID—100 dms, Marseille
OXGALL—5 dms, Martin Baer & Co, Santos
PALM OIL—75 dms, Borden Co, Antwerp
PALMKERNEL OIL—348 tons, Matadi
PAPRIKA—300 bgs, P H Petry, Casablanca
PENTAMETHYLENE TETRAZOLE—8 kgs, Copenhagen
PEPPER, BLACK—400 bgs, Reliable Mercantile Co, Belem
300 bgs, Internatio Rotterdam, Belem
240 bgs, Reliable Mercantile Co, Cochin
30 bgs, C Czarinkow, Singapore
PEPPER, RED—100 bgs, Wm M Allison & Co, Kobe
600 bgs, Californiai Commodities Corp, Kobe
200 bgs, Mitsubishi Corp, Kobe
100 bgs, Louis Furth, Kobe
200 bgs, Louis Furth, Iskenderun
200 bgs, Hismoco American Co, Kobe
PEPPER, WHITE—140 bgs, A G Dunn, Singapore
70 bgs, K H Landes & Co, Singapore
70 bgs, Internatio Rotterdam, Singapore
70 bgs, Atlanta Textile Corp, Singapore
140 bgs, M J Golombeck, Singapore
PHTHALIC ANHYDRIDE—8,000 bgs, International Chemical Corp, Kobe
PIMENTO—24 bgs, Kellys America Ltd, Kingston
80 bgs, Hismoco American Co, Kingston
80 bgs, Otto Gerdau, Kingston
PIMENTO OIL—1 dm, Felton Chemical Co, Kingston
5 dms, Fritzsche Bros, Kingston
PIMENTO LEAF OIL—2 dms, Magnus Mabee & Reynard, Kingston
1 dm, Fritzsche Bros, Kingston
POLYVINYL ALCOHOL—700 bgs, Kobe
POPPYSEED—200 bgs, M J Golombeck, Rotterdam
200 bgs, Louis Furth, Rotterdam
100 bgs, Biddle Purchasing Co, Rotterdam
300 bgs, Levy & Levis Co, Rotterdam
400 bgs, Rotterdam
POTASSIUM CAUSTIC—360 dms, B T Chemco Inc, Gothenburg
POTASSIUM ACID—4 dms, Wyeth International, Havre
POTASSIUM CYANIDE—100 dms, Ugine Industries, Havre
POTASSIUM FERROCYANIDE—300 bgs, Rotterdam
POTASSIUM PERCHLORATE—100 dms, Orlex Dyes & Chemical Corp, Gothenburg
PRUSSIAN BLUE—45 dms, Tar Residuals Inc, Rotterdam
PSYLLIUM HUSKS—522 bgs, Foodline Inc, Bombay
244 bgs, Parke Davis Co, Bombay
609 bgs, Meer Corp, Bombay
PYRIDINE-2-ALDEHYDE—3 cs, Schering Corp, Rotterdam
PYRITES—226 cks, American Metal Climax, Leixoes
QUEBRACHO EXTRACT—2,029 bgs, Barkey Importing Co, Buenos Aires
528 bgs, Tanimex Corp, Buenos Aires
502 bgs, Morgan Guaranty Trust Co, Buenos Aires
899 bgs, Tan American Corp, Buenos Aires
RAPESEED OIL—380 tons, Balfour Guthrie, Karlshamn
ROSEMARY LEAVES—217 bls, Lisbon
SAGE LEAVES—350 bls, Louis Furth, Rijeka
400 bls, Sokol & Co, Rijeka
SAGO FLOUR—403 bgs, Morningstar Paisley Inc, Singapore
SANDALWOOD CHIPS—3 bls, P H Petry, London
SEEDLAC—250 bgs, Gillespie Rogers Pyatt, Calcutta
500 bgs, H C Smith, Calcutta
250 bgs, Capitol Shellac Corp, Bangkok
SESAME OIL—50 dms, I R Boody & Co, Copenhagen
SHELLAC—60 bgs, F H Paul & Stein Bros, Bremen
100 bgs, Mantrose Corp, Bremen
100 bgs, Parks Co, Calcutta
130 bgs, Wm Zinsser & Co, Calcutta
50 bgs, Colony Import & Export Corp, Calcutta
SIENNA, BURNT—20 bgs, T H Deutz, Larnaca
SODA, CAUSTIC—252 dms, B T Chemco Inc, Gothenburg
SODIUM ALGINATE—60 dms, E Mendell & Co, Havre
10 dms, T M Duche & Sons, Bremen
SODIUM BICHROMATE—120 cs, Better Finishes & Coatings Inc, Kobe
SODIUM [illegible]—120 dms, Rotterdam
SODIUM CYANIDE—600 dms, Ugine Industries, Havre
SODIUM PERBORATE TETRAHYDRATE—1,150 bgs, Chemical Manufacturing Co, Liverpool
SODIUM SILICOFLUORIDE—200 bgs, Hamburg
SODIUM SULFATE ANHYDROUS—3,000 bgs, Lo Curto & Funk, Antwerp
STARCH—1,420 bgs, Morningstar Paisley Inc, Amsterdam
STEARYL ALCOHOL—641 bgs, A & S Corp, Yokohama
SULFATHIAZOLE—10 dms, Copenhagen
TALC—20,000 bgs, Charles Matieu, Genoa
TAMARIND SEED POWDER—242 bgs, American Key Products, Bombay
TANNING EXTRACT—5,636 bgs, Crystal Extract & Chemical Co, Fremantle
TAPIOCA FLOUR—1,102 bgs, Manhattan Adhesives Corp, Itajai
3,307 bgs, Stein Hall & Co, Itajai
300 bgs, American Key Products, Itajai
2,240 bgs, Stein Hall & Co, Kohsichang
404 bgs, Geismar & Co, Kohsichang
1,496 bgs, Kohsichang
TARA PODS—143 bgs, Irving Trust Co, Callao
TARTARIC ACID—50 dms, Samrak Chemical Corp, Marseille
THEOBROMINE—[illegible] dms, Rotterdam
THIONYL CHLORIDE—11 dms, Naftone Inc, Rotterdam
TITANIUM DIOXIDE—800 bgs, Antwerp
TOLU BALSAM—10 cs, Magnus Mabee & Reynard, Barranquilla
10 cs, Barranquilla
TURMERIC—314 bgs, National City Bank, Callao
ULTRAMARINE BLUE—250 bgs, Whittaker Clark & Daniels, London
UMBER, BURNT—340 bgs, Smith Chemical & Color Co, Larnaca
30 bgs, T H Deutz, Larnaca
200 bgs, C B Chrystal Co, Larnaca
VEGETABLE OIL—15 dms, Feder Devold Oil Co, Rotterdam
VERBASCI LEAVES—9 bgs, Herbarium Inc, Rijeka
YACCA GUM—304 bgs, Port Adelaide
ZINC YELLOW—100 bgs, Revelli Chemical Co, Antwerp

Los Angeles

ANTIMONY OXIDE—222 bgs, National Lead Co, Liverpool
1,000 bgs, Liverpool
CALCIUM CARBONATE—800 bgs, Pluess Staufer, Antwerp
CALCIUM NITRATE—12,500 bgs, Wilson & Geo Meyer & Co, Heroya
CASEIN—200 bgs, Borden Co, Buenos Aires
CASSIA—80 bgs, Hismoco American Co, Penang
80 bgs, Hismoco American Co, Belawan Deli
306 bls, Djakarta
CHROME GREEN OXIDE—400 bgs, Gdynia
CINNAMON QUILLS—50 bls, Hong Kong
COCONUT OIL—336 tons, Manila
CODLIVER OIL—10 dms, Chas L Huisking & Co, Stavanger
COPRA—508 tons, Cargill Inc, Jagna
812 tons, Procter & Gamble Co, Jagna
1,000 tons, Dumaguete
800 tons, Procter & Gamble Co, Cebu
400 tons, Procter & Gamble Co, Dumaguete
850 tons, Procter & Gamble Co, Jagna
1,000 tons, Procter & Gamble Co, Medina
800 tons, Procter & Gamble Co, Tacloban
1,000 tons, Cargill Inc, Cebu
3,400 tons, Dumaguete
CUMIN SEED—546 bgs, T P Gonzales Corp, Hong Kong
GYPSUM, CRUDE—10,127 tons, Kaiser Gypsum Co, San Marcos
FISHMEAL—125 tons, F P Dow Co, Callao
75 tons, Star Kist Foods, Callao
KELPMEAL—200 bgs, J L Ohman, Stavanger
MOLASSES—2,944 tons, Pacific Molasses Co, Topolobampo
11,036 tons, S Western Sugar & Molasses Co, Manzanillo
MONOSODIUM GLUTAMATE—230 dms, Ajinomoto Co, Yokohama
310 cs, Ajinomoto Co, Yokohama
NIGER SEED—200 bgs, C M Volkman & Co, Assab
OREGANO—320 bgs, H M Newhall & Co, Salina Cruz
PALM OIL—402 tons, Lever Bros, Belawan Deli
PEPPER, BLACK—140 bgs, Ludwig Mueller, Singapore
210 bgs, C Czarinkow, Singapore
160 bgs, California Commodities Corp, Singapore
30 bgs, Singapore
300 bgs, California Commodities Corp, Belem
100 bgs, Mincing Trading Corp, Belem
50 bgs, Internatio Rotterdam, Belem
PEPPER, RED—100 bgs, E S Zerwekn Co, Yokohama
SEAWEED—70 bls, American Agar & Chemical Co, Capetown
SESAME SEED—200 bgs, Hismoco American Co, Corinto
400 bgs, Nieman Bros, Corinto
200 bgs, H M Newhall & Co, Corinto
di-TOCOPHERYL ACETATE—12 pails, J Lonron, Antwerp
UREA—598 bgs, Chemical Manufacturing Co, Middlesbrough

Philadelphia

ASBESTOS FIBER—6,050 bgs, Chas Kurz Co, Lourenco Marques
480 bgs, N American Asbestos Corp, Lourenco Marques
1,000 bgs, Lourenco Marques
400 bgs, N American Asbestos Corp, Durban
BONEMEAL—231 tons, International Packers Ltd, Buenos Aires
CALCIUM CARBONATE—1,521 bgs, Antwerp
CALCIUM PHOSPHATE, DIBASIC—125 bgs, Wessel Duval & Co, Antwerp
CASEIN—2,000 bgs, National Casein Co, Buenos Aires
1,000 bgs, International Casein Co, Buenos Aires
CASTOR OIL—53 tons, Santos
100 tons, Santos
CHESTNUT EXTRACT—700 bgs, Barkey Importing Co, Genoa
CHINA CLAY—5,100 tons, Fowey
CORN STARCH—1,200 bgs, Capetown
CRYOLITE—300 bgs, Venice
DIVI-DIVI—353 bgs, Kerr Maurer, Cartagena
FATTY ALCOHOL—400 bgs, A & S Corp, Copenhagen
FISHLIVER OIL—65 dms, J H Faunce, Yokohama
FLUORSPAR—2,298 tons, A Miller Co, Aviles
FUEL OIL—120,493 bbls, Mobil Oil Co, Aruba
GLYCERINE—300 tons, Procter & Gamble Co, Manila
GYPSUM, CRUDE—9,073 tons, U S Gypsum Co, Little Narrows
9,062 tons, U S Gypsum Co, Hantsport
HEXANOL—180 dms, Henley & Co, Hamburg
IODINE, CRUDE—80 kgs, Yokohama
LICORICE ROOT—3,210 bls, Mac Andrews & Forbes, Iskenderun
MENTHOL—136 cs, Wah Chang Corp, Keelung
NAPHTHALENE—412 bgs, Antwerp
OSSEINE—833 bgs, Antwerp
PEANUT OIL—152 tons, Rotterdam
POTASSIUM MURIATE—1,542 tons, French Potash Co, Antwerp
QUEBRACHO EXTRACT—2,303 bgs, Tan American Corp, Buenos Aires
1,116 bgs, Tanimex Corp, Buenos Aires
1,019 bgs, Barkey Importing Co, Buenos Aires
995 bgs, Buenos Aires
RUTILE SAND—889 bgs, Metal Traders Inc, Brisbane
SODIUM ANTIMONATE—500 bgs, Pigment Chemical Co, Hamburg
SULFUR, CRUDE—3,800 tons, American Sulfur Co, Coatzacoalcos
TANNIC ACID—410 kgs, Keer Maurer, Glasgow
TAPIOCA FLOUR—1,966 bgs, Geismar & Co, Kohsichange
2,844 bgs, Stein Hall & Co, Itajai
VALEX—1,000 bgs, Izmir
VANILLA BEANS—20 cs, Mombasa
WATTLE EXTRACT—1,062 bgs, Barkey Importing Co, Lourenco Marques
340 bgs, Barkey Importing Co, Dar es Salaam
1,279 bgs, Tac Tanning & Chemicals Inc, Durban
ZINC CHROMATE—100 bgs, Wilbur Ellis Co, Kristiansund

San Francisco

ALUMINUM SULFATE—200 bgs, Chemical Manufacturing Co, Manchester
100 bgs, Chemical Manufacturing Co, Liverpool
AMMONIUM CHLORIDE—149 bgs, Chemical Manufacturing Co, Liverpool
155 bgs, P W Bellingall, Kobe
ANIMAL CHARCOAL—900 bgs, Glasgow
ASBESTOS FIBER—4,080 bgs, Keasby & Mattison, Lourenco Marques
400 bgs, Lourenco Marques
BONEMEAL—205 tons, Stauffer Chemical Co, Buenos Aires
CASEIN—1,000 bgs, E Lang, Buenos Aires
100 bgs, Buenos Aires
500 bgs, International Casein Corp, Gothenburg
1,120 bgs, Western Dairy Products, Melbourne
CREAM OF TARTAR—60 dms, Thornley & Pitt, Genoa
FISHMEAL—110 tons, Woodward & Dickerson, Arica
110 tons, Marine & Animal By Products Corp, Arica
110 tons, Wilbur Ellis Co, Callao
439 tons, Starkist Foods, Ilo
219 tons, Wilbur Ellis Co, Ilo
440 tons, Iquique
GRAPHITE—250 bgs, Kobe
GUAR GUM—410 bgs, Genoa
METHYLENE CHLORIDE—100 dms, Venice
MONOSODIUM GLUTAMATE—400 dms, Ajinomoto Co, Yokohama
OLIVE OIL—100 dms, Cadiz
PEPPER, BLACK—340 bgs, Singapore
105 bgs, Singapore
POLLACRILEX, CRUDE—50 dms, Arista Oil Products Corp, Yokohama
QUEBRACHO EXTRACT—300 bgs, Barkey Importing Co, Buenos Aires
SODIUM BICARBONATE—1,200 bgs, Chemical Manufacturing Co, Liverpool
198 bgs, Chemical Manufacturing Co, Manchester
SODIUM [illegible]ORATE—605 dms, Marseille
SODIUM CYANIDE—200 dms, Chemical Manufacturing Co, Liverpool
SULFAMIC ACID—500 bgs, P W Bellingall, Yokohama
TAPIOCA FLOUR—1,680 bgs, H M Newhall & Co, Kohsichang
773 bgs, Morningstar Paisley Inc, Kohsichang
3,472 bgs, Kohsichang
TARTARIC ACID—1,000 bgs, Barcelona
20 bgs, Thornley & Pitt, Genoa
TRICHLOROETHYLENE—60 dms, Chemical Manufacturing Co, Liverpool
TUNG OIL—250 tons, Pacific Vegetable Oil Corp, Buenos Aires
UREA—1,000 bgs, Balfour Guthrie, Kobe

PLANT BOSS: Thomas L. Craig, named by Commonwealth Oil Refining Company to manage the new petrochemicals plant which is being built at the company's refinery near Ponce, P. R.

FTC Okays Consent Order In Leslie Salt Merger Cast

Federal Trade Commission has approved a consent order requiring Leslie Salt Company, San Francisco, to sell a former competitor it acquired on December 1, 1958—Deseret Salt Company, Salt Lake City, Utah.

Leslie also is forbidden by the order to acquire any interest in any domestic salt producer or distributor for the next ten years.

The order was agreed to by both the company and FTC staff counsel. It was accepted in an initial decision by Hearing Examiner Walter R. Johnson, which the commission adopted.

In its complaint of December 14, 1960, FTC said that for many years the respondent has been the largest and dominant producer and seller of salt on the Pacific Coast. The concern's acquisition of Deseret, the complaint charged, has had, or may have the effect of substantially lessening competition or tending to create a monopoly in the production and sale of evaporated salt in the western part of the United States, in violation of section 7 of the Clayton act.

Kawecki and NV Billiton

Continued from Page 3

lumbium) sheet and foil rolling mills and a tantalum anode manufacturing plant is scheduled to start in 1962. Kawecki Chemical will supply initial chemical direction of the operation.

The activities of the new company will be centered at Arnhem under the supervision of Hollandsche Metallurgische Industrie Billiton, a wholly-owned subsidiary of NV Billiton.

The new company will act as agents outside the US for Kawecki Chemical's other products such as high purity germanium, arsenic, cesium, gallium and selenium, and also will market Hollandsche Metallurgische products such as high purity bismuth and indium.

French Urethane Race

Continued from Page 3

monthly in 1962. Production of tolylene di-isocyanates at that site, now around 500 tons a month, will be doubled to 1,000 by mid-'62.

Dekachimie intends to import chemicals from duPont in the US to start developing markets before its plant comes on stream in '63.

Bayer and duPont discovered polyurethane plastics independently just before the war. Bayer moved into the US market in the mid-1950's via Mobay Chemical Company, a joint venture with Monsanto Chemical Company.

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Richmond & Norris Sts. • Phila. 25, Pa.
Jet-O-Mizer Mills & Jet-O-Clone Collectors

Paper Coatings Okayed For Food Use by FDA

Resinous and polymeric coatings for paper and paper board, to be used in contact with food, have been cleared as safe by Food & Drug Administration.

An order published in the *Federal Register* December 9 defines the coatings and the test procedures. The order states that the net chloroform-soluble extractables from the coatings when placed in contact with various named types of raw and processed foods must not exceed 0.5 milligram per square inch.

FDA also announces approvals of the following other orders under the food additives law and the Miller pesticide law:

- Use of reinforced wax of certain specifications as a component of packaging materials for cheese and cheese products.
- Surface lubricants used in the manufacture of metallic articles that come in contact with foods, including surface lubricants that have been the subject of prior sanction or approval, those that have been generally recognized as safe, and the following additional substances: dipropylene glycol, mineral oil and oleic acid.
- Use of propylene oxide in or on dried prunes and glace fruit as a pacakge fumigant.
- A tolerance of 5 parts per million for residues of toxaphene used as a pesticide on cottonseed.
- A tolerance of 7 parts per million for residues of maneb used as a pesticide on pumpkins.

Drugs, Fine Chemicals

Continued from Page 48

department, January-June imports in 1961 were, in million pounds (1960 totals in parentheses): arabic 8.2 (9.6); tragacanth 0.47 (.87); karaya 3.5 (4.2), locust bean 3.8 (4.3).

This situation is not particularly significant since imports vary widely from month to month, nor is there any indication that the US will be unable to obtain its full requirements, BDSA says.

Papain—Food & Drug Administration detained 5 lots (209 packages) of papain at the port of New York during the two week period ended December 1.

Psyllium Seed—Market is strong for black psyllium, which is currently quoted at 42c. to 45c. a pound, up about 4c. a pound from prices at the start of the year. Husks are also higher at 45c. to 48c. a pound, but the blonde seed is selling, unchanged, at 18c. to 20c. a pound.

Imports of psyllium seed have trended downward for the past five years. From 4 million pounds in 1955, volume slipped to 2,624,121 in 1956; climbed to 3,617,396 in 1957; and reached a low of 2,374,829 pounds in 1960.

Quince Seed—Today's quote is $1.55 to $1.75 a pound. The low of the range is recent, but the high has been listed since the start of the year except for a period in mid-winter when prices got as high as $2 a pound due to limited availability.

Imports of quince seed, which were at a peak (301,951 pounds) in 1955, dropped to 184,517 pounds in 1957. But after a further decline in 1958, to 135,539 pounds, the trend started upward. According to the Commerce department, '59 imports were 147,879 pounds and '60 volume was 189,469.

Drug & Fine Chemical Briefs

PENICILLIN STUDY: "Syncillin," manufactured by Bristol Laboratories, New York, is more active against pencillin-resistant staphylococci than either of two older oral penicillins—G andV—according to three University of Iowa investigators who tested all three drugs against 255 strains of staphylococci isolated from patients in the university hospitals.

LANSDOWNE TO SPEAK: J. Warren Lansdowne, president of the American Pharmaceutical Association, will be the principal speaker on January 9 when the Massachusetts College of Pharmacy, Boston, observes Founder's Day with the ceremonial laying of the cornerstone for a new laboratory building.

APPETITE SUPPRESSANT: Effectiveness of "Tenuate" (diethypropion) in providing appetite control with a superior range of safety has been demonstrated by clinical studies conducted at the University of Cincinnati's College of Medicine. "Tenuate" is manufactured by Wm. S. Merrell Company division of Richardson-Merrell, Inc., Cincinnati, Ohio.

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Essential Oils, Aromatics

Citrus oils are generally weaker as the new crop material gets closer to market. Vanilla beans, on the other hand, are stronger. Both Bourbon and Mexican material advanced. Bourbon beans went up 10 cents per pound and Mexican cut material went up 55 cents per pound. Palmarosa oil, while it has not actually advanced on spot, is decidedly stronger. The new crop material is reported to be some 40 percent smaller than anticipated. Offerings are few and prices high. Both lemongrass and citronella continue strong as does sandalwood. There is still no word about when the Madras auctions will be held. They were postponed at the request of the buyers and have yet to be re-scheduled. Some news sources have estimated that it will be March before they will take place. Brazilian and Peruvian bois de rose are difficult to obtain, according to reports from source.

Sales of soap and synthetic detergents rose to a new high of 2.2 billion pounds during the first half of 1961, according to the sales census of the Association of American Soap and Glycerine Producers, Inc. This volume is 2 percent greater than the previous high reached in the first six months of 1960.

Soap sales, excluding scouring cleansers, amounted to 502.8 million pounds compared with 522.5 million pounds for the same period a year ago.

A new soap factory is reportedly being built in Libya. Tripoli's press has recently publicized the proposed construction of a $280,000 soap factory in Tripolitania, stating that a contract to construct the factory has been awarded to a German firm and that equipment orders have been placed by the interested Libyan company.

Price Trends

Advanced
Vanilla beans, Bourbon, 10c. per lb. Mexican cut, 55c. per lb.

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
143.74	143.53	143.47	145.46

For Current Prices See Page 9

Essential Oils

Bois de Rose—Material from both Brazil and Peru is difficult to obtain. The market is firm.

Citronella—Formosan material continues at its higher levels. Spot prices have not risen, however.

Grapefruit—On the eve of the appearance of new crop material, the market appears to be easier.

Lemon—Spot prices remain unchanged although weakening is noted due to anticipation of a large new crop.

Biphenyl has been found to reduce decay in overseas shipment of lemons, according to USDA.

Such shipments in both vented and nonvented cartons had less decay and soilage, which means dusting of sound fruit with spores from decaying fruit, when treated with biphenyl. Representatives of the American citrus industry and other related industries requested the USDA's Agricultural Marketing Service and the California Citrus Experiment Station to investigate the effectiveness of biphenyl and carton ventilation in reducing decay and soilage. Marketing researchers tested three shipments of lemons en route to Hamburg, Germany, from Los Angeles.

Three corresponding static tests were made in model refrigerator cars located at the Citrus Experiment Station at Riverside, Calif. Biphenyl reduced the average ratio of soiled fruit to decayed fruit from 3.2 to 0.8 in all inspections of overseas test shipments and from 2.5 to 0.8 in fruit in static tests.

Copies of "Effect of Biphenyl Treatment and Carton Ventilation on Decay and Soilage of California Lemons in Overseas Shipments," Marketing Research Report 500, may be obtained from the Office of Information, US Department of Agriculture, in Washington.

Lemongrass—The market continues strong.

Orange—The market for Florida orange oil continues generally weak. According to trade sources polled last week, prices are listed in a range of 25c. to 50c. per pound.

Supplies are regarded as fully adequate to fill the requirements of the trade.

Palmarosa—The new crop is said to be 40 percent smaller than originally anticipated. Offerings are few and prices high.

Sandalwood—The Madras auctions have not been re-scheduled, according to reports from source. Meanwhile, source and spot prices continue high.

Aromatic Chemicals

Vanillin—October imports of vanillin totaled 13,944 pounds, valued at $67,197 and dutied at $13,186.

Seven thousand pounds of this material came in from Canada. This amount was valued at $20,790 and dutied at $4,160. The Netherlands supplied 2,500 pounds which was valued at $16,706 and dutied at $3,249; West Germany supplied 2,240 pounds which was valued at $14,969 and dutied at $2,911; and Switzerland supplied 2,204 pounds valued at $14,732 and dutied at $2,866.

Seeds and Spices

Basil—California course material has advanced in price from $1.20 per pound to $1.25. California medium material continues at $1.15 per pound and French material continues at 75c. per pound.

Cardamom—Alleppey green material advanced from $1.75 per pound to $1.80, while Alleppey decorticated material dropped from $2.50 per pound to $2.45.

Other grades of material, however, remained at their previously quoted prices.

Celery—French material has dropped from its previous price, 42c. per pound,

Essential Oil Imports: October

	Principal Origin	Pounds	$ Value
Cinnamon Leaf, Cinnamon	Ceylon	6,900	10,814
Geranium	France	26,141	333,006
Rose, Otto of Roses*	Bulgaria	1,984	70,785
Bergamot	Italy	7,034	72,390
Citronella	Italy	145,600	133,414
Lemongrass	India	151,945	327,577
Lavender	France	137,259	219,360
Lavender Spike	Spain	3,805	5,262
Lemon	Italy	71,613	333,466
Orange	Switzerland	314	5,357
Sandalwood	India	3,687	82,113
Lime	Mexico	25,116	117,841
Cananga	Madagascar	7,841	66,046
Lignaloe	Peru	21,431	31,793
Palmarosa	India	507	2,670
Petitgrain	Paraguay	8,567	18,589
Rosemary	Spain	2,613	3,081
Clove	British East Africa	48,133	61,503
Eucalyptus	Spain	65,403	38,266
Patchouli	Indonesia	3,940	15,228
Vetivert	Haiti	9,431	83,541
Ocotea Cymbarum	Brazil	20,723	5,958

Source: Bureau of Census.
* Ounce.

Essential Oils

to 40c. per pound. Indian is now listed at 38c. per pound.

Cloves—The market is generally firmer. Zanzibar material is up a penny to 40c. and Madagascar material is up half a penny to 38c.

Fennel—Argentine material dropped from 16c. per pound to 15½c. Other grades of material remain at their previously listed prices.

Ginger—Cochin material has dropped from 27c. per pound to 26.

Mace—General easement was noted. Siauw No. 1 fancy dropped from $1.25 per pound to $1.20; Siauw No. 1 whole dropped from $1.20 per pound to $1.15; Siauw No. 2 prime dropped from $1.15 per pound to $1.10, and Siauw No. 2 siftings dropped from $1.10 to $1.05.

Marjoram—French material continues quite firm. From its previous price, 85c. per pound, it has jumped to 90c.

Nutmegs—West Indian material has dropped from 85c. per pound to 84c. and East Indian 110's have dropped from 90c. per pound to 84c. East Indian shrivels have come down from 83c. per pound to 82c.

Saffron—Both Mancha superior and Mancha selected remain firm at their previously-listed prices, $20 and $22 respectively.

Pepper—Slight fluctuations were noted. Both Malabar and Lampong black advanced from 37½c. per pound to 38; Brazilian white remains at 49c. per pound; Muntok white remains at 50c. per pound, and Brazilian black dropped from 36½c. per pound to 36.

Before World War II a fairly regular cycle in pepper prices was observed with an average interval of approximately 14 years between successive peaks, according to the Committee on Commodity Problems of the Food and Agricultural Organization of the United Nations.

This 14 year pattern was interrupted by the world war but has to a considerable degree been resumed since the war, although the extent of the post-war price rise was much larger than in any pre-war cycle.

This price pattern is closely connected with the production cycle. High prices stimulate new planting which gives a maximum yield only five or six years later. The subsequent fall in prices may continue for some years as a result of liquidation of stocks. The discouragement to planting, plus shortage of stocks, produces a renewed upturn of prices only after a further 6 or 7 years.

Vanilla Beans—Heavy buying of Bourbon material has caused the market to firm. From the previous range, $6.40 to $6.65 per pound, it has advanced to a range of $6.50 to $6.70 per pound.

Stocks in Madagascar are said to be small and the new crop is said to be much smaller than originally anticipated.

Mexican material, which has been firm for some months due to a small crop, also has gone up. Cut material has advanced from its previous range, $7.85-$8.25, to a range of $8.40 to $8.60 per pound.

Mexican whole remains at its previous listing.

Imports Detained at N. Y.

Two-Week Period Ending Dec. 1

Cassia, 14 lots, 1,446 bales.
Coriander seed, 2 lots, 500 bgs.
Mace, 14 cases.
Nutmegs, 3 lots, 572 bags.
Sesame seed, 150 bags.

Essential Oils Briefs

COSMETIC CHEMISTS MEET: Dr. S. M. Livengood, of Union Carbide Chemicals Company's technical service laboratory at Tarrytown, N.Y., will speak before the January 10 meeting of the New York chapter of the Society of Cosmetic Chemists.

He will talk about polyoxyalkylene derivatives, including glycols, nonionic emulsifiers etc. and their molecular association reactions with a variety of common materials.

The meeting will be at 5:30 p.m. at the Chemists' Club, 52 East 41st Street in New York.

FLATOW EXPANDS: R. E. Flatow & Co., Oakland, Calif., has expanded its office space and added two laboratories. One of the new laboratories will be devoted to coloring problems. The other is designed for general development, formulating and customer service work in cosmetics, emulsions and waxes.

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Jobs & People

Baxter Laboratories, Morton Grove, Ill.—**Joe E. Irvin** has been appointed to the newly-created position of package engineer.

Cargill, Inc., Minneapolis, Minn. —**James R. Randall,** a member of the oil division operations staff, has been named associate director of research.

Carus Chemical Company, La-Salle, Ill. — **Carl R. Sandin** has joined the company as chief engineer to help pilot its expansion program.

Ciba Company, Inc., Fairlawn, N.J.—**Werner Grether** has joined the company as a dye chemist specializing in wool and synthetic fibers.

Cutter Laboratories, Berkeley, Calif.—**A. W. Blendow, jr.,** has been appointed pharmaceutical sales manager. He was previously with Wyeth Laboratories.

Dow Chemical Company, Midland, Mich.—**Norman S. Simons** has been named service manager of the Dobeckmun Division's New York sales office.

E. I. duPont de Nemours & Co., Wilmington, Del.—**Thomas A. Frazer,** assistant director of the traffic department, will retire for reasons of health at the end of this month.

Emery Industries, Inc., Cincinnati, Ohio—**Dr. Bernard R. Krebacher** has been appointed to the derivatives research section of the organic chemicals research department.

Firestone Synthetic Rubber & Latex Company, Akron, Ohio—**Benjamin Kastein, jr.,** has been named technical sales service representative.

FMC Corporation, New York — **Robert J. Flemming** has been named process development manager of FMC's newly-organized urethanes project.

General Aniline & Film Corporation, New York—**William F. Ward, jr.,** assistant to the chairman of the board, has been named director of marketing services. **William A. Boetcker** has been appointed international manager of the Ozalid Division.

General Electric Company, Waterford, N.Y.—**Joseph C. Caprino** has been named manager of rubber market development in the silicone products department. He replaces **Walter J. Dugan,** who was recently made marketing manager for the chemical materials department.

Hercules Powder Company, Wilmington, Del.—**Dr. Lane M. McBurney** has been named manager of the central research division, succeeding **Dr. Robert Voris,** who was recently made manager of the newly-created high-energy research division.

Monsanto Chemical Company, St. Louis, Mo.—**Peter D. Burland** has been appointed a project manager in the development department of the hydrocarbons division at Houston, Tex.

Stauffer Chemical Company, New York—**K. Lee Sturges** has been appointed area manager at Fresno, Calif.

U.S. Industrial Chemical Company, a division of National Distillers & Chemical Corporation, New York—**William F. McDonald** has been named assistant director of the polymer service laboratories at Tuscola, Ill.

HATCO VICE-PRESIDENT: Alex Kaufman, elevated from plant manager to vice-president of its Hatco Chemical Division by W. R. Grace & Co., New York.

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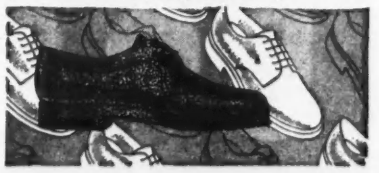

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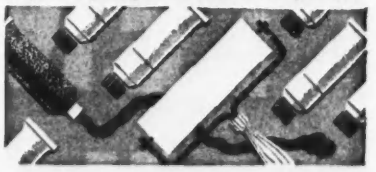

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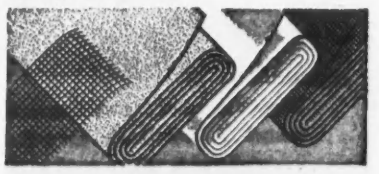

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Coating Materials

On Wednesday (December 20), lead-free grades of zinc oxide will go up one-half cent a pound. This is the latest word from producers on the zinc oxide situation. Recent weeks have seen a 50-per-hundredweight increase in the price of zinc metal, and the move on the part of ZnO pigment manufacturers is a reflection of this increase. The new prices supersede those established in February of this year, and return lead-free zinc oxides to the level in effect before that time.

French process material as well as American process is affected by the changes. The French process grades thus revert to the level of this past May. Also affected is the USP pharmaceutical grade, which will advance one-half cent per pound along with the rest.

Only one producer has not gone along with the price advance, it is reported. Inasmuch as most producers selling on contract will permit purchases at the old level through January, the entire situation can best be termed as "cloudy."

Leaded zinc oxide prices show only slight changes from those reported in this column last week. A second producer has lowered his prices, but others have not yet moved. The price reductions are slight, ranging from one-eighth to one-quarter of a cent, depending on the lead content of the pigment.

The single producer who dropped his prices earlier, consequent upon the declines in lead metal during November, has not been met by the others. The earlier reductions amounted to one-half cent per pound, but covered cofumed oxides which normally run one-quarter of a cent below the mechanically combined grades.

Other producers report that sales volume of leaded oxides at this time of the year is not such that it matters one way or the other. What's more, the price of zinc is now up, so things should even themselves out.

Withal, the situation is a somewhat confused one.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
103.44	103.44	103.45	103.14

For Current Prices See Page 9

Prime Pigments

Lead Oxides—After recent price fluctuations, coming about as the result of antecedent fluctuations in the price of lead metal, producers have more or less stabilized their prices. Red lead, litharge and mineral orange are adhering to price schedules established at the end of November.

Zinc Oxides—Prices of lead-free material will go up on Wednesday (December 20). The increase amounts to ½c. per pound in all cases. Both American and French process material is affected, as well as the USP pharmaceutical grade of zinc oxide.

The price advance is a reflection of the recent ½c. per-pound-advance of zinc metal. Only one producer has not gone along with the new prices.

A second producer has moved to reduce its prices on leaded zinc oxides. Reductions are ⅛c. to ¼c. Leaded oxides are enjoying a current price spread of from 13¼c. to 14c. per pound on the 35 percent grade, and from 13¾c. to 14½c. on the 50 percent grade.

Fillers and Inerts

Blanc Fixe—Domestic supply continues ample to meet all requirements. West Coast price, recently adjusted, remains steady at $160 a ton for material in carlot quantities, $10 per ton more for less-than-carlot quantities. On the East Coast the price is $215 a ton, l.c.l., at warehouses in New York.

Gypsum—Output of crude gypsum from domestic mines in the third quarter was 3 percent below that of the corresponding quarter in 1960. Bureau of Mines puts the amount of crude mined at 2,608,538 short tons.

Production of calcined gypsum decreased only 1 percent from the third quarter of 1960. The July-September production figures are set at 2,281,568 short tons by the bureau. Sales of uncalcined gypsum products were up a noticeable 19 percent from the third quarter of last year. Large advances were made in cement-retarders and fertilizers.

Lacquer Materials

Phthalate Plasticizers—No further price adjustments are reported in the making, after those reductions suffered by these plasticizers at the end of October. Increasing abundance of their basic raw material, naphthalene, may have some effect on their position in the market.

Production of dibutyl phthalate for September was down somewhat from the August totals, reports the Tariff Commission—1,284,735 pounds as against 1,464,186 pounds.

Total production of dioctyl phthalates—di-n-octyl, di-isooctyl and di (2-ethylhexyl) phthalate—on the other hand, rose slightly in September from the month previous. The 15,157,363 pounds turned out in September are compared with 14,993,411 pounds in August.

Tricresyl Phosphate—Tariff Commission reports tricresyl phosphate production in September to have more than doubled the amount turned out in August. In September, 2,654,902 pounds of the material were produced, as against the mere 1,104,550 pounds (revised figure) turned out in August.

Tricresyl phosphate is seeing increased use as a gasoline additive, although still employed to some extent as a plasticizer.

Synthetic Resins

Price declines in both epoxy and phenolic resins feature this end of the market. Leading producers of the two materials have cut their prices as much as 3c. per pound.

Epoxy Resins—A major producer has dropped his prices 3c. per pound. The reduction puts the new tankcar price of low viscosity, bisphenol-epichlorohydrin epoxy resins at 62c. per pound.

Increased sales volume resulting in manufacturing economies are the reason given for the reductions. The epoxies affected by the price drop are used in electrical equipment encapsulations, industrial flooring compounds, solventless surface coatings, wet lay-up laminating and adhesive formulations.

Phenolic Resins—The phenol-based materials are down following last week's 1¾c. per pound drop in price of phenol itself. The new price of general purposes phenolic molding compound in bags is 20½c. per pound, a reduction of ½c. per pound.

Liquid phenolic resins are down ¾c. per pound, while certain solid resins are reduced as much as 1c. per pound. Only one producer has announced the changes thus far, but others are expected to remain competitive.

Miscellaneous Materials

Casein—Prices are for the most part unchanged to ¼c. lower. Stocks of Argentine continue light. Argentine for spot sale is 18⅝c. to 19c., mostly 18¾c. Occasional lots are moving for 19¼c., for prompt shipment 18¼c. to 18½c.

Buying interest on the part of domestic consumers is confined mainly to current needs, reports say. However, some advance buying is noted for February or later shipment.

For the first week in quite some time, a limited amount of Polish is reported, with the price at 18¼c. An occasional offering of French is also noted. Subject to obtaining an export license, the French casein is being sold at a price ranging from 17¾c. to 18¼c., but is limited to a very small tonnage.

Australian for spot sale is 19¾c. to 20¼c., for future shipment 18¾c. to 19½c., mostly 19¼c.

New Zealand continues to move to its regular outlets at 24c. to 25c.

Glue—Glue production for October shows a 28 percent increase over the figures for September, and a 10 percent increase over October 1960. Major difference in the figures was in hide glue production.

Bureau of Census puts production at

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Coating Materials

8,847,000 pounds in October, as compared with 6,925,000 pounds in September, and 8,033,000 pounds in October a year ago.

Stocks of all glues, although falling off slightly from the month previous, were 3 percent higher than at the end of October 1960.

Naval Stores

The rosin market appears to be holding firm as the industry approaches the period when production grinds to a halt. Rosin sales are up considerably from preceding weeks. Turpentine is a little softer. Percentage of gum grading water white (WW), which has been steadily declining over the past month, was so small as to be negligible.

Rosin overall sales in the week ending December 8 totaled 4,138 drum equivalents, up from 1,631 the week before, and 1,902 two weeks previous. Sales, f.o.b. plants, prompt, drums WW $11.85 to $11.90, WG $11.80 to $11.97, Nancy $12.00, M and below $11.80 to $12.15.

Turpentine overall sales in the week ending December 8 were down to 39,000 gallons from the 42,105 gallons turned out in the week previous. Tankcars, f.o.b. plants, prompt, 20c. to 21c. per gallon.

Average price paid producers for commercial pine gum in the week ending December 2 was $31.00 per barrel, as compared with $30.80 the week before, and $39.00 a year ago.

Average barrel content: turpentine 8.37 gallons, rosin 296.9 pounds. Gum grading: 3 WG, 16 N, 60 M, 21 K and below.

Coating Materials Briefs

REICHOLD HAS NEW ALKYD: Reichhold Chemicals, Inc. has developed a new air-drying, water-soluble resin for use by the paint industry. Designated "40-507 Alk-O-Mer," the new resin, when used in interior glass and semi-gloss enamels, imparted characteristics summarized by Reichhold as "good air-dry, low odor, excellent leveling, and high water-resistance."

DISTRIBUTOR NAMED: Eagle-Picher Company has appointed Deeks & Co., Decatur, Ga., as the distributor of its lead and zinc pigments in the states of Alabama, Georgia, North Carolina, South Carolina and Tennessee.

POLYETHYLENE RESIN: Hercules Powder Company has added a new item to its line of "Hi-fax" high-density polyethylene resins. Called "Hi-fax 1900," the new plastic material is of very high molecular weight and gives an impact strength reportedly superior to that of other thermoplastics.

First commercial use of the new plastic is in textile machinery parts; its special properties indicate it may find use also in abrasion-resistant parts.

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Thiourea Interest Reawakened Here: Growth Potential Spurs Output Plans

Thiourea's growth prospects and the absence of domestic production are causing US chemical firms to take a fresh look at the diversely-used material. Six weeks ago, in an announcement that obviously disconcerted Japanese and West German suppliers, a leading importer reported that it will turn producer with the completion of a facility at Peoria, Ill., and since this disclosure, the trade has been abuzz with rumors that two US chemical giants are also contemplating entrances into this market. Strangely enough, the speculation is warranted in this instance because there are credible motives for such ventures.

Spokesman for the one firm admits, in fact, that its interest in thiourea has already provoked talks with foreign manufacturers for the purpose of obtaining processing rights. And to this report, a trade source adds that the firm has just concluded a "technical agreement" with a West German chemical producer and plant designer. But this has not been confirmed.

Currently, the firm's internal requirement for thiourea runs to about 400,000 pounds annually. It uses the material, reportedly, as an intermediate in the manufacture of fire-retardant resins for lacy fabrics.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
129.64	129.64	130.02	130.70

For Current Prices See Page 9

January 1 Price Advances

Ethylene dichloride, ½c. per lb.
2-Ethylbutanol, t.c., 3c. per lb.
Isopropyl ether, ½c. per lb.
Propylene dichloride, ½c. per lb.

The other firm that figures in the rumors manufactures calcium cyanamide, a raw material in the production of thiourea, and actually turned out thiourea for a short time several years back. Today, it is importing from the Japanese and presumably uses the material captively as well as offering it on the open market.

New would seem the time for either firm to make a move. The market isn't big enough to accommodate more than a few producers and, for their part, European suppliers are probably desirous of a licensing arrangement, thus insuring them some profit, before being shut out of the market completely.

One trade member points out that the importer-turning-producer has worked out a licensing agreement with one of the several producers of thiourea in Japan and if as suspected, a West German maker has entered into a similar deal, the battle lines are already drawn. Another importer suggests that licensing is now the "preferable" way.

Domestic requirement for thiourea is thought to be in the 5 million to 8 million pound range today and growth is indicated. Best prospects appear to be usage in boiler treatment to remove copper scale and diazo-type coatings for chemical, heat or photosensitive paper.

This latter application took approximately 1¼ million pounds in 1960, and industry sources figure that 1961 requirements will be considerably larger, considering the increase in sales of the "instant" copying machines that are found today in practically all offices.

What's more, the technical men who have been investigating possible replacements for thiourea in the manufacture of diazo compounds have come up with nothing new and one source indicates that it's doubtful they will.

Sodium hydrosulfide, however, has replaced thiourea as raw material for thioglycolic acid, which is used in hair waving lotions. And though the switch began about ten years ago, some thiourea suppliers are still soliciting business in this area.

Should the price of thiourea drop below the 28 cents a pound currently quoted, however, thioglycolate makers may become interested again. Their switch to sodium hydrosulfide, it's said, was dictated by the 6-cents-a-pound tag on this chemical, which is a decided cost advantage despite the greater quantity required.

Thiourea's use in silver cleaning has also been cut back by the increasing acceptance of stainless teel, but a fairly good-size market still exists in the photographic industry despite the encroachment of competitive chemicals.

New uses are coming along, though, and the trade expects some major developments. One application under investigation is as a chelating additive in gasoline and a report from Canada indicates that thiourea is being used there to prevent brown stain on hemlock wood.

With a couple of domestic producers and the lower prices that might result, research and development on thiourea will undoubtedly quicken. But even today it seems to be a chemical with a future.

Carbon Tetrachloride—October imports of carbon tetrachloride, totaling 510,918 pounds, were valued at $23,986 and dutied at $4,343, according to the Commerce department. Italy was the sole supplier.

Carbon tet production will probably be up slightly for all of 1961. Through September, output was 283,981,000 pounds and this represents a gain of about 1.5 million pounds over the first nine months of 1960.

Major usage in the manufacture of chlorofluorohydrocarbons for use in aerosol propellants continues at a good rate.

Chloroacetic Acid — Imports of chloroacetic acid, which have been a problem to US manufacturers of the chemical in the past, may be less so in the future. A statistical review finds a downtrend in progress.

In no month this year has volume exceeded that of January (1.05 million pounds) and, in fact, the low was reached in October (205,500 pounds) after hovering at about that level in the two preceding months.

Aliphatics Foreign Trade: October

Imports of selected industrial aliphatic organics for September and October, 1961, as reported by the Bureau of Census, were as follows:

		October	September
Acetic and (over 65 percent)	lbs.	157,000	611,210
Acetic anhydride	lbs.	72,940	6,650
Amyl, hexyl, propyl alcohol and fusel oil	lbs.	0	0
Carbon tetrachloride	lbs.	510,918	1,475,460
Chloroacetic acid and anhydride	lbs.	205,500	314,720
Ethyl alcohol	gals.	0	1,300,354
Formic acid and anhydride	lbs.	165,432	220,912
Furfural	lbs.	0	0
Glycerine, crude	lbs.	970,697	672,439
Refined	lbs.	0	0
Lactic acid (55 percent or more by weight)	lbs.	74,323	85,448
Perchloroethylene	lbs.	1,493,457	2,027,245
Tetrachloroethane	lbs.	0	0
Trichloroethylene	lbs.	5,444,794	1,921,774
Vinyl acetate unpolymerized	lbs.	3,843,735	2,997,440

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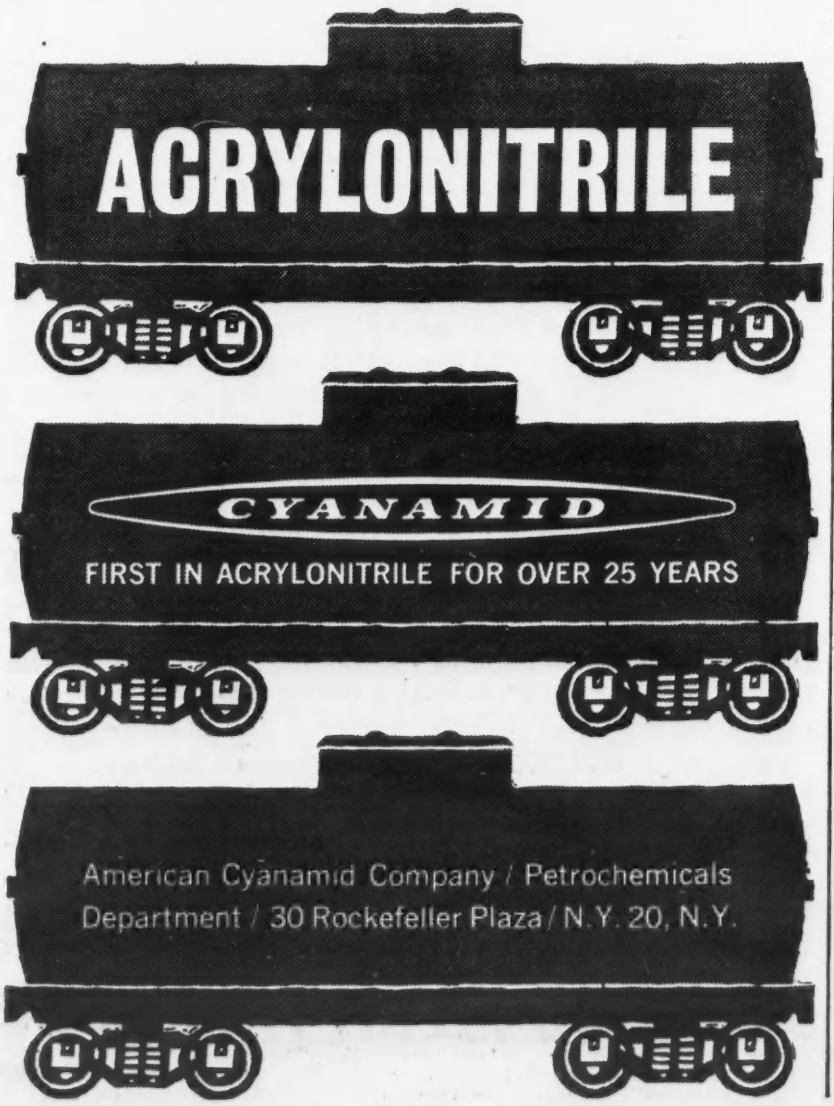
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Aliphatic Organics

Through the first ten months of '61, imports amounted to 6,210,234 pounds, indicating that the year's total will fall far short of that of '60 (11,194,864 pounds).

It is possible, of course, that the downtrend reflects increasing quantities of the chemical going to Canada from the three European countries which have shipped to the US in the past. (France, the Netherlands and West Germany being the three countries.)

October imports were valued at $18,216 and dutied at $1,575, according to the Commerce department.

Dimer Acid—The sole manufacturer of dimer acid is now offering two grades of the chemical with lighter color specifications. The firm says the lighter colors will permit increased use of these products throughout the surface coatings field.

An aliphatic C_{36} dibasic acid, dimer acid gets into alkyds, varnishes and epoxy coatings as a partial replacement for both other dibasic acids and drying acids. It reportedly provides greater flexibility and toughness, and increases bodying.

The chemical is also used as a non-surface coating for rust inhibitors, elastomers, adhesives, oil well drilling muds, and degreasing compounds. One grade is employed in the production of high-quality, polyester-based urethane foams requiring special properties.

Perchloroethylene—Imports of perchloroethylene amounted to 1,493,457 pounds in October, down from slightly more than 2 million a month earlier. Value, according to the Commerce department, was $116,916 and the duty, $7,016.

Sources were: France, 1,083,098 pounds, valued at $84,093 and dutied at $5,047; Canada, 274,959 pounds, valued at $23,662 and dutied at $1,419; and Japan, 135,400 pounds, valued at $9,161 and dutied at $550.

Sucrose—US Department of Agriculture has just authorized the purchase of 869,013 short tons, raw value, of non-quota sugar in the first six months of 1962.

Trichloroethylene—Imports zoomed to 5,444,794 pounds in October from 1,921,774 in September. Value was $373,205 and the duty, $27,991, according to the Commerce department.

Shippers were: United Kingdom, 3,208,284 pounds, valued at $201,838 and dutied at $15,138; Italy, 1,591,845 pounds, valued at $111,460 and dutied at $8,360; Canada, 345,490 pounds, valued at $39,326 and dutied at $2,949; France, 154,455 pounds, valued at $10,966 and dutied at $823.

Also, Netherlands, 89,904 pounds, valued at $5,730 and dutied at $430; Japan, 52,800 pounds, valued at $3,398 and dutied at $254; and West Germany, 2,016 pounds, valued at $487 and dutied at $37.

Through October, imports amounted to 31,127,664 pounds. This compares with 59,088,069 pounds in all of 1960. Reason for what appears to be a very substantial downtrend is the recessioned-slowed demand of the early part of this year.

It's possible, of course, that imports in November and December will add another 10 million to 12 million pounds to the year's total.

Aliphatic Organics Briefs

PIPE LINES COMPLETED: SunOlin Chemical Company, Philadelphia, has completed construction of a $4.5 million pipeline network connecting its Claymont, Del., plant site with customers' facilities New Jersey. Eight lines extend 6,000 feet across the Delaware River to Penns Grove; certain lines then branch south about ten miles to E. I. duPont de Nemours & Co. at Deepwater and others run north about twelve miles to Shell Chemical Company at Woodbury.

SYNTHETIC RUBBER: Business & Defense Services Administration estimates world production of synthetic rubber at 1,245,000 tons and consumption at 1,212,000 tons during the first eigth months of 1961. In the comparable period a year ago, the figures were 1,285,000 tons and 1,185,000 tons, respectively. Data exclude the Iron Curtain countries.

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Agricultural Chemicals

Higher prices for methyl and ethyl parathion will take effect January 1, 1962 according to a major chemical company. Ethyl parathion and methyl parathion, 80 percent, will go up 4 cents to 88 cents a pound for truckload quantities. Less than truckload amounts will move at 91 cents a pound. Methyl parathion, 70 percent, will be increased 3 cents to 76½ cents a pound for truckloads. Less than truckload price will be 79½ cents a pound. Terms are on a freight allowed basis east of the Rockies. In the nine states west of the Rockies prices will be 2 cents higher as is the current custom. The company's usual cash discount will apply under the new schedule.

Ethyl and methyl parathion are primarily cotton insecticides so that the higher prices will not have much impact on the market until the spring.

Other major producers are reported studying the new schedule. No word has been received as yet, however, of additional price increase announcements.

The $3 a ton of nitrogen increase for fertilizer materials announced by a major producer ten days ago to become effective January 1, 1962 has not yet been met by other major companies according to reports received towards the end of last week.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
111.84	111.84	111.60	109.41

For Current Prices See Page 9

January 1 Price Advances

Ammonia, $2.50 per ton.
Ammonium nitrate, $4 per ton.
Ammonium sulfate, 65c. per ton.
Ammonium sulfate, purified, 1c. per lb.
DDT, 4c. per lb.
Ethyl parathion, 4c. per lb.
Methyl parathion, 70%, 3c. per lb.
80%, 4c. per lb.
Nitrogen solutions, $3 per ton.
Nitrogenous sewage sludge, 15c. per unit-ton.
Potassium sulfate, 50% K_2O, 3c. per unit-ton.
Sodium nitrate, 60c. per ton.
Urea, 46% N, indust., $1.35.
feed grade, $1.35.
agricultural, 45% N, $2.60.

One western nitrogen producer flatly stated it would not raise prices.

Other major producers in the east remarked that the situation was under study.

Animal and Plant Foods

Ammonium Sulfate—By product ammonium sulfate production rose 7.5 percent in October while sales showed a modest gain of 1.6 percent. Stocks climbed 17.4 percent.

Production amounted to 59,862 tons in October, up from 55,680 tons in September. In October 1960 production was 42,500 tons. Production through the first ten months of 1961 was 505,799 tons, down from the 551,809 tons turned out in the comparable period of 1960.

October sales, excluding exports, amounted to 33,076 tons as against 32,559 tons in September. In October a year ago sales were 37,700 tons. Sales for the first ten months of 1960 were 456,214 tons as against 507,000 tons last year through October.

Inventory showed the most drastic change with 160,961 tons reported in producers' hands at the end of October as against 137,146 tons at the end of September. Stocks at the end of October amounted to 142,992 tons.

Urea—With the $3 per ton of nitrogen increase announced ten days ago, the initiating company's price for agricultural grade urea, 45% N, moved forward $1.35 a ton from the company's listing of $92.50 to $93.85. Competition had forced the company to sell at $91.25 during the fourth quarter, however. So that while the producer's increase appears as a $1.35 advance over its list price, the hike is actually a $2.60 increase over current prevailing price.

Other producers earlier this year announced a $95.25 a ton f.o.b. price for urea starting January 1, 1962, which is $1.40 above the price announced by one company ten days ago.

Delivered prices at last report were $97.25 a ton for one supplier, with the balance of the industry scheduled at $97.25.

Pesticides

US and Japanese pesticides industries continue to show remarkable growth.

US pesticide sales on the manufacturers' level this year are likely to hit the $300 million mark and have nearly doubled in the last eight years from the $161 million in sales accounted for in 1953.

Japanese production of pesticides in finished form, including the value of imported concentrates, rose to $93.7 million in 1960 as against $76.8 million in 1959 according to *Chemical and Rubber*, publication of Business and Defense Services Administration.

Agricultural Chemical Briefs

RESEARCH GRANTS AWARDED: Six grants totaling $423,683 have been made to one Uruguayan and five Colombian institutions to further research on livestock diseases, forest pests, insect biology, fruit ripening, drug plants and rice marketing. The awards are the first under a program financed by foreign currencies obtained from the sale abroad of US agricultural commodities under Public Law 480. Funds will be available only in the currency of the foreign countries and cannot be converted into dollars for research in the US.

Farm Chemicals Exports: October

Following are data compiled by Bureau of Census indicating volume of exports of agricultural chemicals for October, 1961 and, for comparison, October, 1960.

		October 1961	October 1960
Fertilizer			
Ammonia, anhydrous and aqueous	lbs.	18,554,430	14,307,621
Ammonium nitrate	lbs.	6,730,600	1,732,166
Ammonium phosphate and other nitrogenous and phosphate type fertilizers	S. tons	2,306	21,426
Ammonium sulfate	lbs.	33,173,184	83,274,664
Nitrogenous fertilizer, n.e.c.	lbs.	1,820,571	6,965,680
Nitrogenous organic waste	lbs.	2,349,180	2,144,815
Phosphate hard rock and Florida land pebble	S. tons	354,337	313,779
Except Florida hard rock	S. tons	64,064	79,129
Phosphatic fertilizer	S. tons	291	107
Potassic fertilizer, n.e.c.	S. tons	12,720	4,966
Potassium chloride	S. tons	39,629	103,190
Sodium chloride	lbs.	53,625	390,600
Superphosphate	S. tons	15,006	24,687
Triplesuperphosphate	S. tons	18,023	49,409
Urea	lbs.	4,087,059	29,137,015
Pesticides			
BHC	lbs.	66,354	684,878
p-Dichlorobenzene	lbs.	268,280	628,400
DDT (total)	lbs.	5,297,288	7,913,877
tech.	lbs.	1,399,478	1,302,126
20-74%	lbs.	40,713	94,721
75% or more	lbs.	3,951,197	6,517,030
Pyrethrum extract	lbs.	2,341	297
2,4-D, 2,4,5T as parent acid content	lbs.	374,078	293,076

n.e.c.—Not elsewhere classified.

Trade Name Chemicals

Paint Drier Business Likely to Stay At the $13 Million Level Next Year

Producers of paint driers report they expect to maintain a sales volume of about $13 million next year despite inroads made into the paint market by non-drier-using latex paints. And although near term projections for a 3 to 5 percent increase in paint sales are based mostly on added consumption of the latexes, drier producers point out that many paint formulators have tended to make some compromise between all latex and all oil-based systems. This is felt to be especially so in the difficult areas such as outdoor house paints.

It's hoped that successful marketing of such products as "Linaqua," a water-soluble linseed oil vehicle produced by Spencer Kellogg Division of Textron, Inc., will result in bigger sales of driers in modified latex systems. SK recently reported that more than fifty paint companies will offer paints using "Linaqua" for the 1962 spring painting season.

For these and other paint manufacturers, the company is recommending that conventional lead, cobalt and manganese naphthenates be incorporated with the product before thinning with water in preference to the use of water dispersible driers.

Spencer Kellogg added a new "Linaqua"-based product last month when it introduced a primer claimed to be the first practical water-thinned primer for all exterior wood surfaces.

While observers grant that latex paints have made spectacular gains in the past decade, they point out that the bulk of overall paint volume is in oil-based products and these products, with the exception of lacquers and industrial baked finishes, use drier compounds.

DRIER METALS: SALES CHARTED

1961 . . . . *23.0 million lbs.
1960 . . . . 21.6 million lbs.
1959 . . . . 26.2 million lbs.
1958 . . . . 23.0 million lbs.
1957 . . . . 24.6 million lbs.
1956 . . . . 23.5 million lbs.
1955 . . . . 26.9 million lbs.

***Estimate**

Source: Tariff Commission. Figures above represent sales of selected salts of naphthenic, tall oil, and 2-ethylhexoic acids.

Metallic Salts Used

These driers generally are heavy metal salts of naphthenic, tall oil and 2-ethylhexoic acids which serve to step up the rate of oxidation and polymerization of paint films. Most films will harden in time by themselves, but the use of driers cuts the time substantially.

Basically, the paint film polymerizes and hardens because double bonds of unsaturated fatty acids used in drying oils absorb oxygen from the air. Oil molecules combine at the double bond to form larger molecules which eventually form the paint surface.

From a practical point of view, a good drier has to be soluble and stable in alkyd, oil and varnish vehicles. It should also have a high concentration of drier metal to cut down on the total amount of liquid added to the paint, should be easily handled and give a minimum amount of discoloration.

About 65 percent of the drier market is in naphthenates, 25 percent in tallates and 10 percent in octoates. Linoleates and resinates are now used primarily in printing inks.

Although other organic acids have been evaluated for driers, trade sources report that on the basis of performance and economics none have had the staying power of naphthenic and tall oil acids.

Drier producers generally redistill their raw material to reduce odor problems and provide a high purity acid for drier production.

Tallates have become increasingly strong contenders as they are several cents per pound less than other driers and tall oil with very low rosin acids content has become available.

Tallates Use on Upgrade

Thus, although metallic salts of tall oil acids are normally less stable than naphthenates and higher in viscosity, updated drier production methods and careful purification of acids has resulted in products considered equal to naphthenates on a metal basis and at somewhat less cost.

Of an estimated 23 million pounds of domestic naphthenic acid produced, about 12 million pounds go into naphthenate drier production. About 14 million pounds of naphthenic acid is produced which has acid number of 220 or over and this is the type of material generally used in production of paint driers. About 2.5 million pounds of tall oil fatty acids are used in making tallate driers, approximately 2 percent of the total tall oil market.

The octoates are reported to have come into increasing use since they have less odor than any of the drying oils, varnishes or alkyds with which they are used and are therefore preferred in products such as sanitary enamels, architectural finishes and printing inks where low odor is desired. Fast drying action is said to make them more efficient than naphthenates for use in drying enamels in areas where humid weather is a problem.

The octoates are premium driers, priced 5-6 cents a pound higher than naphthenates and about 10 cents over the tallates. Tariff Commission reports production of octoate driers last year amounted to 1.5 million pounds.

In recent years, producers have made available water-dispersible driers designed for use in emulsion type paint systems. These products are reported compatible in latex emulsions, alkyd modified latex emulsions, acrylics, straight alkyd emulsions, butadiene-styrene, and various copolymer emulsions. The water-dispersible driers are incorporated in the paste grind or during thin-down process with mild agitation.

Drier Producers Listed

Chemical producers who offer a full line of driers for the paint industry include Advance Solvents & Chemical Division of Carlisle Chemical Works, Nuodex Products Division of Heyden Newport Chemical Corporation, Harshaw Chemical Company, Witco Chemical Company, Ferro Chemical Division of Ferro Corporation, McGean Chemical Company and Frederick A. Stresen-Reuter, Inc.

Advance Solvents has marketed a zirconium drier catalyst ("Zirco") described as a complex of a mono-zirconyl compound and a dizirconyl compound. The company says the main purpose of this product is to catalyze the activity of primary driers, such and cobalt and manganese and that the compound has very little activity as a drier when used alone.

Advance points out that a great many paint film failures result from a continuation of oxidation (inherent in driers) after the film has reached a state of complete cure. This is felt to be especially true in combinations including lead soaps.

Lead, as a polymerization catalyst, continues to function long after the film is cured. The company stresses the fact that when "Zirco" is used, it is mandatory that lead drier be omitted completely.

The product is said to extend the activity of cobalt, normally a surface oxidation catalyst, throughout the thickness of the film. The compound is also reported

Continued on Page 67

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Oils, Fats and Waxes

While trading in most oils was spotty last week, consumers continued to absorb a good volume against current contracts, which gave the market a steady tone. Increased interest in edible vegetable oils stiffened this group last week, due chiefly to active trading in cottonseed and soybean oils for export and domestic delivery, advancing prices fractionally. Corn oil also turned stronger and sold at 1 cent higher. Crude peanut oil continued scarce and was boosted ½ cent per pound. Crude coconut oil was quiet, but firm and unchanged for prompt and forward shipment. Higher cost of olive oil shipments from sources, stiffened the local market and quotations were lifted 5 cents per gallon.

Firm tone featured tallow and greases, despite light trading. Offerings continued scanty and were generally maintained at premium of ⅛ cent higher for prompt shipment. Lard market was slightly higher.

Tung oil trading was restricted to an occasional tankcar at concessions, but demand for a sizable quantity was closely held at unchanged quotations, because of dwindling stocks here and scanty offers for shipment from Argentina at higher prices than prevail in the local market. Domestic producers of tung oil continued to limit offerings. Linseed oil was quiet, but steady. Brazilian oil was inactive and shadable in some quarters. Crude menhaden oil was steady, despite lagging demand here and abroad. Crude tall oil was scarce and firm. Higher prices were expected to become effective after the turn of the year.

Soybean meal eased following higher prices for the oil and dropped $3.50 per ton, while linseed meal was stronger because of tight supply situation and advanced $2.50 per ton. Cottonseed meal was sold well ahead and market was raised $1 per ton. Peanut meal production was scanty and entirely nominal.

Price Trends

Advanced

Corn oil, crude, 1c. per lb.
Refd., 1c. per lb.
Cottonseed meal, $1 per ton.
Cottonseed oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Lard, cash, ½c. per lb.
Linseed meal, $2.50 per ton.
Olive oil, spot, 5c. per gal.
Peanut oil, crude, ½c. per lb.
Refd., ½c. per lb.
Soybean oil, crude, ⅜c. per lb.
Refd., ⅜c. per lb.

Reduced

Cocoa butter, 1c. per lb.
Soybean meal, $3.50 per ton.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Dec. 16, 1960
118.93	118.59	115.45	106.03

For Current Prices See Page 9

Vegetable Oils

Castor—Trading was slow. No. 1 Brazilian oil was offered at 16¼c. per pound, tankcars, New York, prompt delivery and shadable on firm bid. Domestic grades were in fair request for immediate needs.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	...	1,186,000
Previous week	200,700	3,506,000
Corresponding week, 1960	...	3,962,000
Total this year	2,895,650	91,534,000
Corresponding period, 1960	3,503,450	89,670,000

Coconut—Buying interest lagged. Crude was unchanged at 10¾c. per pound, tankcars, f.o.b. Pacfic coast, December-January shipment and firm at 12c. tankcars, f.o.b. New York, prompt delivery.

Corn—This market was stronger, rallied and advanced 1c. Crude was sold at 21c. per pound, tankcars, f.o.b. mills, prompt delivery Refined oil was lifted to 24.91c., tankcars, New York basis.

Cottonseed—Futures were active and stronger scoring sharp gain reflecting good trading in crude oil for refiners account. The December and July deliveries reached new seasonal highs. Active movement of crude was the dominant factor in futures. December tenders increased to 31 contracts and readily stopped. Hedging operations were moderate. Refined salad oil was higher at 16¼c. per pound, tankcars, New York for prompt delivery.

Demand for crude for refiners account was active and sales took place at ¼c. higher. Tankcars were moved at 12⅞c. per pound, f.o.b. mills, in the Valley and 12½c Waco. The southeast ranged from 13c. to 13⅛c., as to location.

The 1961 cotton crop estimated at 14,304,000 bales by the Agriculture Department, 234,000 bales below the November forecast. The 1960 production totaled 14,272,000 bales and 10-year average, 13,553,000 bales. Cotton yield this year averaged 438 pounds of lint per acre as of December 1 against 446 pounds in 1960 and 10-year average, 362 pounds. Farmers harvested 15,686,000 acres out of 16,587,000 acres planted, 5.4 percent was abandoned because of insect damage. The national acreage allotment for 1962 has been set at 18,101,718 acres about 400,000 less than 1961. Cotton ginnings through December 1 were about 82 percent of this year's crop, compared with 88.2 percent for the same period last year.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, December 15, follow:

	Cents per Pound			
	Sales	High	Low	Close
Dec.	321	14.99	14.57	14.95 S
March	545	14.75	14.38	14.56 S
May	562	14.68	14.37	14.50 S
July	228	14.61	14.34	14.40@14.44
Sept.	8	14.05	13.95	14.05 S
Oct.	3	13.79	13.73	13.75 S

Total sales and switches, 1,667 contracts.

Linseed—This market was quiet, but firm, reflecting the increased cost of flaxseed. Raw oil was unchanged and held at 15.20c. per pound, tankcars, f.o.b. Minneapolis, December-February delivery; 15.40c., March-May and 16.28c., tankcars, f.o.b. New York.

Linseed oil sales in November amounted to 12,431,489 pounds bringing total to 168,283,755 pounds for the August-November period of which 300,000 were for export according to the National Flaxseed Processors Association.

Olive—New crop oil replacements were stronger, advancing $1.50 to $2 per 100 kilos. Trading was light at the advance and took place at $54 to $55 per 100 kilos, drums, f.o.b. ports, January-March shipment. Tunisian and Algerian oils were offered at $55 to $56 per 100 kilos, drums, c. and f. New York, for prompt shipment. Higher cost of replacements stiffened the local market. Sales ranged from $2.35 to $2.40 per gallon, drums, exwarehouse, depending upon quantity.

Palm—Replacements were firmer owing to heavy rains affecting production. This gave the market a better tone, although trading continued hand to mouth. Drums were unchanged at 14½c. to 15½c., spot, as to quantity and tankcars, 11¾c., prompt delivery.

Peanut—Production was limited and closely held. Crude was higher at 19c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil was advanced to 22c., tankcars, New York, prompt delivery.

Peanuts production for 1961 was estimated by the Agriculture Department at 1,762,975 pounds against 1,785,716 pounds last year. Yield per acre was placed at 1,234 pounds compared with 1,266 pounds in 1960.

Safflower—Consumers absorbed sizable quantities against contracts. Market was unchanged and steady. Edible grade was held at 22.60c. per pound, tankcars, New York delivery and industrial oil at 19c., same basis.

Soybean—Improved trading stiffened this market. Crude advanced to 10¾c. per pound, tankcars, Decatur, unrestricted, December delivery. Demand for refined grades was spotty. Refined salad was lifted to 13⅛c. per pound, tankcars, New York, prompt delivery.

Turkey was authorized last week to purchase 50,000 tons of cottonseed or soybean oils.

CCC purchased 790 metric tons of soybean salad oil at 14.59c. per pound, in 50-55 gallon, drums, f.a.s. New Orleans for shipment to Taiwan, it was announced by the Agriculture Department last week.

Soybeans production in 1961 was indi-

Oils, Fats and Waxes

cated at 693,023,000 bushels by the Agriculture Department compared with 555,307,000 bushels last year. Yield per acre was 25.3 bushels against 23.5 bushels in 1960.

Tall—Firmness continued to feature this market. All grades were moving against existing contracts at unchanged quotations. Crude oil was scarce and strong and new contracts for the first quarter next year tend upwards and are expected to range from $70 to $75 per ton, tankcars, f.o.b. works, depending upon seller and quantity. Refined and distilled grades and fatty acids were maintained at prevailing prices.

Production of crude tall oil in 1961 is estimated at 420,000 tons. Tall oil fatty acid output in 1960 was indicated at 172 million pounds and totaled 103 million pounds during the first six months of 1961. At this rate annual consumption would be more than 200 million pounds. There is not enough crude produced to cover this total output, thereby keeping the basic oil in a very tight position.

Tung—While trading was limited, the market remained on a steady basis, reflecting dwindling stocks here and scarce offerings from the Argentine held at 30c. per pound, c.i.f. Tankcars were quoted at 29c. per pound New York for prmopt and forward delivery, with occasional sales reported at ¼c. to ½c. less for forward delivery. Offers o. domestic oil also were scanty and market was nominal around 28c., tankcars, f.o.b. works.

Miscellaneous

Cocoa Butter—Market was slightly lower with futures, declining 1c. Stocks on spot were quoted at 65c. to 70c., per pound, as to quantity. Trading was slightly improved.

Copra—Market was quiet and steady. Prompt shipment was offered at $150 per ton, c.i.f. Pacific coast.

Flaxseed—Flaxseed crushed in November totaled 1,590,355 bushels increasing total to 6,312,810 bushels during August-November it was reported by the National Flaxseed Processors Association.

Offerings of cash flaxseed were scarcely enough to make a market, producers holding back in view of recent sharp advances, watching for the peak. Bids were firm at $3.50 per bushel, spot and to-arrive, basis Minneapolis. Strength persisted in futures at Minneapolis and Winnipeg. To-arrive trading was a blank.

Final estimate of 1961 flaxseed production wasp laced at 21,852,000 bushels by the Agriculture Department compared with 30,204,000 bushels in 1960. Yield per acre was indicated at 8.7 bushels against 9.1 bushels last year.

Fats and Greases

Greases—While trading was light, the market remained on a steady basis. Offerings were limited and generally held at ⅛c. higher. Choice white ranged from 7½c. to 7⅝c. per pound, tankcars, delivered and yellow, 5c. to 5⅛c., same basis, depending upon acid.

Lard—Market was steadier and cash lard was advanced to 8⅞c. per pound, drums, Chicago.

Tallow—Firm tone prevailed in this market, despite hand to mouth business. Offerings continued scarce and maintained at premium of ⅛c. Bleached fancy sold at 5¾c. per pound, tankcars, delivered, and ⅛c. more asked; prime ranged from 5½c. to 5⅝c.; special, 5⅜c. to 5½c.; guaranteed fancy, 7½c. and No. 1, 5⅛c. to 5¼c., same basis. Edible tallow was quoted at 8¼c., same basis. Export inquiry was reported fair. Turkey was authorized to purchase 14 million pounds of tallow. Guaranteed fancy ranged from 6⅜c. to 6½c. per pound, bulk, f.o.b. steamer and drums 7½c., f.a.s.

Cake and Meal

Cottonseed Meal—Light offerings and active demand further strengthened this market. Deliveries against contracts was also active. Meal, 41 percent was held at $68 per ton, sacked, Mississsippi Valley area and $70 to $72, Alabama, Georgia and Carolina.

Linseed Meal — Strength persisted in this market. Prices for spot shipment advanced $2.50 a ton, deferred up $1.50. Supplies were tight, reflecting excellent formula feed business and slow withdrawals against contracts. Few crushers were pressing for spot business, directions keeping schedules well filled. Offerings beyond December were limited. Extracted meal, 34 percent protein, bulk, in carlots, f.o.b. Minneapolis, was up to $63.50 a ton, prompt shipment; $62, January. Old process, 32 percent protein, was firm at $63.50, December; $63, Jan.-Mar.

Peanut Meal—Small lots were moved on the basis of $72.50 per ton, sacked, Alabama, Georgia area. Production continued scanty.

Soybean Meal—Weakness developed in this market after preceding week's spectacular advances. Futures at Chicago led cash in the declines, but cash meal failed to follow when futures displayed healthy recovery. Higher oil prices contributed to weakness in meal. Production is extremely heavy and increasing. Formula feed business was excellent, but mixers watched for lower prices on offal in view of anticipated heavy crush. Trading was light. Meal, 44 percent, lower at $59.50 per ton, unrestricted, bulk, Decatur, for nearby delivery.

Waxes, Vegetable

Quiet conditions prevailed in this market last week. Lack of buying interest, however, did not weaken prices and the market remained on a comparable steady basis. Demand for carnauba grades was confined to small lots for immediate needs. Yellows were still tight on spot, and quoted nominally, while occasional small lots were available for shipment from Brazil at slightly lower levels. This enabled some sellers to reduce prices. No. 1 Ceara yellow was moved from 85c. to 88c. per pound, prompt delivery and Parnahyba, 89c. to 92c., same basis, depending upon quantity and quality. Fatty grades were quiet and unchanged. No. 3 Ceara was offered at 55c. to 57c. per pound, spot and Parnahyba, 2c. more, according to quantity.

Firmness continued to feature beeswax, because of the strength of replacements of crude. Offers for shipments were light and closely held. Refined grades were unchanged and also steady. Candelilla was held at current levels. Japan wax was quiet and maintained at 29c. to 31c. on spot, according to quantity. Ouricury stocks were not liberal, but demand also was slow.

DuPont Wins Point

Continued from Page 3

out, would be public sales of the stock to meet the heavy capital gains levy.

Testimony supporting duPont's views was given in court last week by a spokesman for the University of Chicago.

J. Parker Hall, treasurer, estimated that tax-exempt institutions of all kinds would suffer an equity loss of more than $6 million under present tax laws.

He said that the university owns 24,200 shares of Christiana stock, with a current value of $5 million. The government has proposed that Christiana also be forced to divest itself of GM stock because the holding company is controlled by the duPont family.

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1—4'6"x46' 316 S.S. Clad Column, 250 PSI.
8—3'x20', 30"x19' 347 S.S. Packed Columns.
1—24"x35' 304 S.S. Bubble Cap Column.

FILTERS

2—Niagara 370 sq. ft. Vert. 304 S.S.
1—Niagara 110 sq. ft. Vert. 316 S.S.
1—Niagara 92 sq. ft. Vert. Jkt. 316 S.S.
1—#10 Sweetland 36 leaves, 3" centers.
1—#5 Sweetland 304 S.S., 120 sq. ft.
1—Sperry 30" C.I. Filter Press, 27 chambers.
1—Oliver 6' dia. Horizontal 316 S.S.
1—Oliver 4' dia. Monel Horizontal.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet.
1—Hercules 400 sq. ft. 304 S.S. Pressure.
3—Oliver Precoat 5'x6', 5'x10', 8'x10'.
1—Oliver 5'3"x8' Steel Rotary Vac vaportite housing.
1—Feinc 3'x1' 316 S.S. Rotary Vac.

DRYERS

1—Buflovak Vacuum Shelf, 17—60"x80" shelves.
2—Buflovak 42"x120", atmospheric double drum complete.
3—American 42"x120" Atmospheric Double Drum Dryers, complete.
1—Buflovak 32"x90" Atmos. Twin Drum.
2—Devine 4'x9' single drum, atmospheric.
1—Buflovak 48"x28" C.I. Single Drum Flaker.
1—Buflovak 3'x10' Rotary Vacuum.
6—Louisville Rotary Steam Tube 6'x30', 6'x50'.
2—Louisville 8'x50' Stainless Steel Lined Rotary.
3—Rotary Dryers, 4'x40', 6'x50', 7'x80', 8'x80'.
1—Louisville 4½'x25' Inconel Rotary.
1—Link Belt 6'4"x24' Rota Louvre, 316 S.S.
1—Atmos. Tray, 13 shelves, 3'x3'.
2—10' and 4' dia. 304 S.S. Spray Dryers.
2—Wyssmont, 304 S.S. 6'2" and 9'6" dia.

MIXERS

1—Sturtevant 75 cu. ft. 304 S.S. Rotary Batch Blender, 20 HP.
1—Abbe 110 gal. 304 S.S. Jacketed Agitated Vacum Dispersall Mixer.
2—Baker Perkins 150 and 100 gal. jacketed double arm Sigma Blades.
1—Baker Perkins 50 gal. jacketed.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
1—Steel jacketed Powder Mixer, 225 cu. ft.
1—Day 215 cu. ft. Jumbo Powder Mixer, 316 SS, 30 HP Motor.
1—Day 120 cu. ft. Jumbo Powder Mixer, 25 HP motor.
1—45" dia. Lancaster Mixer, 7½ HP.

MISCELLANEOUS

3—Kinney Vacuum Pumps, 1000 cfm, 10 microns, 15 HP.
3—Hardinge 6'x36", 5'x22" and 3'x24" steel lined conical Ball Mills.
1—Sturtevant 6' dia. Air Separator, 10 HP.
1—Komarek Briquetting Press, 3½" face rolls.
2—Mikro Pulverizers, 2TH and 1S1.
3—Swenson Walker Continuous Crystallizers, 24"x30' sections.
2—Tyler Hummer 3'x10' Double Deck Screens.
5—Day Roball Sifters, 40"x120", 40"x84", Double Deck.
6—Nash H10, H8, H6, H5, L5 Vacuum Pumps.
3—Nash H6, L3 347 S.S. Vacuum Pumps.
2—Stokes Rotary Tablet Machines DD2-DDS2.

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Baker Perkins 100 gallon MIXER, Jacketed, sigma
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18"x28" Bird Continuous Centrifuge.
Nash L3 Stainless VACUUM PUMPS 140 CFM (3).
11,500 gal. Stainless TANK Agitated.
42" Tolhurst CENTRIFUGE Stainless Perforate.
48"x41' Stainless BUBBLECAP COLUMN, 40 trays.
72"x30' Stainless BUBBLECAP COLUMN 21 trays.
Pfaudler 500 gal. ELL GLASS LINED REACTOR.
Pfaudler 300 gal. El GLASS LINED REACTOR.
4500 gal. 347 Stainless COIL PANS, 6'x20'2".
Link Belt 604-24 Stainless ROTO-LOUVRE DRYER.
1860 sq. ft. Stainless REBOILER 271—1"x12' tubes.
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Swenson EVAPORATOR 435 sq. ft. Stainless single effect condenser, vapor separator.
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Raymond #1 Pulverizer.
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12"x18' STAINLESS PACKED COLUMN, 100 PSI.
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Interchemical Buys Site For Central Research Unit

Interchemical Corporation has purchased six acres of land at Clifton, N.J., as site for its new central research laboratories quarters, and for the national headquarters and laboratories of its finishes division.

Construction is to begin in the spring of 1962. The multi-million dollar project will provide 110,000 square feet of space and will house about 300 persons, Interchemical says.

Tri-isobutyl Aluminum Hiked

Texas Alkyl, Inc., on January 1 will increase the price of tri-isobutyl aluminum to 98 cents pound in tankcars and tanktrucks, and to $1.13 a pound in 1,450 and 700-pound cylinders.

Sulfur and Potash

Continued from Page 5

including TGS output in Utah," Mr. Stephens said.

The surface plant at Moab will consist initially of two units, each capable of producing about 550,000 tons of potash a year. The total tonnage of 1.1 million is reportedly greater than the current output of any domestic producer.

Texas Gulf, which has already spent $12 million on the potash project, plans to add a third unit at Moab "as market conditions require," Mr. Stephens said.

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Day #40 Imperial Mixer 150 gal. w'k, 40 hp
Abbe 5'x6' Jkt. Ball Mill, chrome mang. steel
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3750—Zaremba Double Effect INCONEL Evaporator with calandria; 430 sq. ft. of surface; with accessories.
3247—Swenson Quadruple Effect Long Tube Evaporator.
3475—Zaremba Single Effect Cast Iron Evaporator; 130 sq. ft. Copper tubes.
2895—Devine Single Effect Cast Iron Calandria type; 28"x8'.
3870 M2—Mojonnier 3' dia. S/S Calandria Evaporator; 30.5 sq. ft.
5020—Stainless Electrically Heated 60 gal. Vacuum Evaporator; 20"x40" with Heat Exchanger.
487—Zahn & Nagel Continuous Evaporater; 2500 lbs. per hour, wiped surface, falling film.
3497 S—Jacketed Crystallizers; 24"x12".
5020 S1-2—Two Stainless Steel Vacuum Vessels 22 gal. 18"x16" and 30 gal. 22"x18"; Gas Fired.
3340—Brand NEW Stainless Steel Kettles good for 100# always in New York stock; sizes up to 500 gal.
5020 S10—Stainless Closed Kettle: Dished Bolted Head: Jacketed and Agitated: 24"x27".
4986 C14—Stainless 150 gal. Kettle, Closed Dished Head: 30"x48".
4300M 19-20—Two 15 gal. Stainless Coil Heated Agitated Tanks: 28"x56".
4745 S1-2—Two MONEL Tanks, Coil Heated: 150 gal. 34"x38".
4551 S9—Stainless Steel 250 gal. Coil Heated Kettle: 48"x39".
5045 W4—Cherry Burrel Stainless Jacketed, Agitated Kettle, 200 gal.: 40"x36".
5522 S1-2—Two 500 gal. Stainless Tanks—Coil Jacketed; Prop. Agitators, Cold Wall Type.
4619—Groen Type 316 Stainless 300 gal. Jktd. Kettle; 54"x44".
5411 C15-20J—Five Baker Perkins Stainless Steel Jacketed Kettles 540 gal. 4'x5'5" with agitators; Bolted Manhole covers.

MIXERS

5523—Baker Perkins Lab. Size Stainless Steel Jktd. Double Sigma Mixer; 2 gal. 11½"x6½"x9½".
5454 G2—Baker Perkins Stainless Steel Lab. Double Sigma Arm Mixer 2¼gal.: 6½"x9½"x11½".
5520 D1—Baker Perkins 2 gal. Double Arm Jktd. Mixer; 2 HP.
5325—Baker Perkins Lab. Jktd. Dispersion Mixer UNE 7; 5 gal. Pressure Cover, Screw Tilt; 30 HP.
5250—Readc Jktd. Steel Dbl. Arm Mixer; 15 gal.; 15 HP.
5383—Baker Perkins Stainless Double Arm Mixer, 15 gal. Jacketed Vacuum Cover; 15 HP.
5482—J. H. Day Double Sigma Arm Jacketed Mixer; 18"x18"x 20"; 3 HP.
M25 401—Baker Perkins Stainless Steel Unjacketed Mixer; S.S. 33" 32"x36"; 20 HP Motor.
5525 C1—Baker Perkins Stainless Lined Size 14—50 gal. Dbl. Arm Jacketed Mixer; Vacuum Cover; 15 HP.
5426—Baker Perkins Size 14—50 gal. Double Sigma Arm Mixer Jacketed: 28"x29"x23"; 7½ HP Motor.
5520 D2—Baker Perkins 50 gal. Dbl. Arm Jacketed Mixer: 30 HP.
5481 M3—J. H. Day Cincinnatus 75 gal. Jacketed Double Arm Mixer; 10 HP.
2160—W. & P. Type Jktd. Double Arm 100 gal. Mixers geared both ends.
5316—Baker Perkins 100 gal. Dbl. Arm Jktd. Mixer; geared both ends; power screw tilt; motorized.
5223 C-3-4—Two Lehmann Amalgamators; Stainless Lined; 32"x 44'x36"; Stainless Arm; 7½ HP.
5401—Werner & Pfleiderer 150 gal. Dbl. Arm Jacketed Mixer.
5481 M1-2—Two Day Cincinnatus 200 gal. Jacketed Double Arm Mixers with Covers good for Internal Pressure; 20 HP.
5502—Baker Perkins 200 gal. Jacketed Double Arm Mixer; 50 HP.
4742—Baker Perkins Size 16 UUMM Double Arm Dispersion Type Mixer 240 gal. holding; 150 gal. working; Compression Cover good for 100 HP.
4271 D1—Baker Perkins Size 17 Class BB Type VII Jacketed Mixers; double sigma arms; 200 gal.
M25-501—J. H. Day Stainless 250 gal. Jktd. Mixer with Sigma arms; geared both ends.
4409 D—8 Baker Perkins Heavy Duty Jacketed Mixers; 300 gal. working; Size 18 with Hydraulic Tilt.
4343 D—7 Baker Perkins Heavy Duty Jacketed Mixers Sigma Double Arms; Size 17; 200 gal. working.
5070 F1-2—Stainless Lined Double Sigma Vacuum Mixers; 300 gal. 56"x50"x44"; with 60 HP Motors.
4921 T53—Baker Perkins Hexagonal Jacketed Baratte; 150 gal. good for Vacuum; 36"x39".

CENTRIFUGALS

4041 P14—Rubber Cov. Susp. Centrif.; 30"x18"; Annular Discharge.
4330 W2—Tolhurst 26" Centrifugal; Perf. Basket; Plow Dis. 2 speed.
4913 G17—Tolhurst 26" Rubber Covered Suspended Centrifuge; perforate basket; bottom dump and plow.
1152 Mc—Bird 48" Rubber Cov. Extractor; with 40 HP 2 speed motor.
1152 Mcl—Bird 12" Rubber Lined Centrifuge with Perforate and imperforate Basket.
4262 H4—Laundry Type 28" Centrifuge; Copper Perf. Basket; underdriven.
4926—Squier 30" Suspended Stainless Steel Centrifugal with perforate basket.
5190 D4—A. T. & M. 30" Susp. Centrifuge in Stainless; 2 speed.
4093 B11—A. T. & M. Susp. Centrifugal: 40"x24"; Solid Bowl; Bot. Discharge.
4819 M9—A. T. & M. 30" Solid Basket Susp. Centrifuge extra rubber covered curb & Basket.
5230 L1—Western States Model UD Centrifugal in Type 316 Stainless; 36"x20"; Vapor Tite; Automatic Loading.
4331—Tolhurst imperforate Self. Bal. MONEL 40" Centrifuge; Rub. Lnd. Curb 7½" HP.
2945 M4—Tolhurst 40" Overdriven; self balancing with Copper Basket, perforated; 7½" HP motor.
4483 G27—Tolhurst 40" Rubber Covered; Perforate Basket; 5 HP.
5504—Western States 40" STAINLESS Steel Perforate Basket; 25 HP Vertical Motor.
4507 A-16—Six Tolhurst 40" Suspended type Centrifugals; Rubber Covered Perforate Basket and Curbs; Monel Plow, 2 Speed Motors, 7½-15 HP.

MILLS — CRUSHERS PULVERIZERS

4551 S4—Abbe Stainless Steel Lab. Ball Mill 9"x18".
5354 M6—Abbe Pebble Mill 3'x3'.
4830 B6 to 11—Six Patterson Porcelain Lined Pebble Mills, Type B; 30"x42".
M3 G303—Patterson Chrome Manganese Lined 50 gal. Ball Mill; 24"x36" with 3 HP motor.
5013 H1—Abbe Jacketed Steel Ball Mill 5'x4' with balls.
5013 H2-3—Steel Ball Mills Jktd.: 42"x32"; 54"x48".
5310—Abbe No. Buhrstone Lined Pebble Mill; 52"x36".
5354 M7—Patterson Steel Ball Mill 54"x54"; 15 HP Motor; Steel Balls.
5540 T16—Unlined Steel Ball Mills; 3'x5'; 4'x6'; 4'6"x5'6"; 5'x7' - 5'3"x7'3" - 6'x8'.
5354 M5—Abbe Size #2½ Pebble Mill; 5'x6'; 10 HP.
M3 P304—International Porcelain Lined Pebble Mill; 48"x60" with 15 HP Explosion Proof Motor.
5164 A2—International Porcelain Lined Pebble Mill; 5'x6'; with 15 HP Motor.
4879—Jacketed Steel Ball Mill 5'x2'6"; lifting bars with 25 HP Motor.
3443—International 8'x8' Porc. Lnd. Pebble Mills; 50 HP Gearmotors.
M8-205 Hardinge Conical Ball Mill; 3'x24" with Conical Feeder, Manganese Liner; 15 HP motor.
4693—Jacketed Buhrstone Lined Pebble Mill; 6'x6'; 1000 gal.; 25 HP.
M3-S400—Allis Chalmers Gates Tube Mill 5'x22'; Silex Lined.
5395 M1-2—Allis Chalmers 2 Compartment Compeb Mills; 7'x22' Meehanite Liners; each with 400 HP Motor.
5395 M4-5-6—Allis Chalmers Continuous Tube Mills 7'x22' with ribbed Meehanite Liners.
5356 N29—Hardinge Conical Ball Mill 3'x8" Fan and Dust Collector.
5540 T17—Rod Mills; 6'4"x6'4"; 6'x8'.
5147 S2—Schutz O'Neill 22" Style "D" Pulverizer.
3429 A8—Gruendler Puverizer 48"x12" requires 150 HP.
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2—2850 gal. Struthers-Wells, 5'6" dia. x 15' long, brick-lined, ASME 800 psi WP, (3) vert. T316 SS Agit.
2—2250 gal. Nooter, 5' dia. x 15' long, T316 SS clad, ASME 800 psi WP, (3) vert. T316 SS Agit.
3—800 gal. Struthers-Wells 4'6" dia. x 10' long, T316 SS clad, ASME 400 psi WP, (3) vert. T316 SS Agit.
1—165 gal. Struthers-Wells, 2' dia. x 7' long, Titanium lined, ASME 1000 psi WP, (3) vert. Titanium Agit., elec. heaters.
1—5 gal. T316 SS, Nooter, direct-fired, Agit.
1—3 gal. Autoclave Eng., T316 SS, direct-fired, 2000 psi WP, Agit.
1—½ gal., Blaw-Knox T316 SS, 2000 psi WP, direct-fired, Agit.

FILTERS — CENTRIFUGALS

2—Niagara #36H-350-2, T316 SS press.-leaf filters, 350 sq. ft., vert. leaves, horiz. jacketed tank.
2—Process Filters #901A4, T304 SS pressure leaf filters.
2—Feinc 3' dia. T316 SS horiz. rotary vacuum filters.
1—Feinc 3' dia. horiz. vacuum filter, Monel & Rubber-Covered.
4—Eimco 8'x8' rotary vac. filters, rubber-covered.
1—Eimco 4'x8' T316 SS rot. vac. filter, precoat.
1—Merco #A-24, T316 SS contin. centrif., 40 HP.
1—Mercone #C-400 T316 SS contin. centrif., 40 HP.
2—Sharples C-20 Super-D-Hydrators, T316 SS.

PUMPS

4—Aldrich 3⅛"x5" Triplex, T316 SS, 1000 psi, 30 HP.
3—Aldrich 2⅛"x3" Triplex, T316 SS, 450 psi, 10 HP.
3—Aldrich 1½"x2" Triplex, T316 SS, 1000 psi, 7½ HP.
1—Milton-Roy #M-DI-101-84-SM, T316 SS.
2—Allis, 3" rubber-lined centrif., 10 HP.
3—Galigher 2" rubber-lined centrif., 5 HP.
30—Worthington 2"x1½" Worthite centrif., w/motor.
20—Worthington 1½"x1" Worthite centrif., w/motor.
6—Oliver centrif. Olivite: 2", 1¼", w/motors.
2—Ing.-Rand #10AFUS, Iron centrif., 3500 GPM @ 125'.
3—Ing.-Rand #2½VHTB Iron Turbine, 1636 GPM @ 3380' head, 250 HP.
2—Worthington #16QHO-1 Iron Turbine, 3500 GPM @ 80' head, 100 HP.
2—Nash H-8 vacuum pumps, 50 HP.

CALCINERS — DRYERS FURNACES — BOILERS

3—Bartlett & Snow, 14" I.D. x 18'5" long stainless rotary calciners, indirect gas-fired, ⅞" thick calcining tube.
1—Bartlett & Snow 3' dia. x 19'6" rotary dryer.
1—Gas Machinery Co. 5' dia. rotary annealing furnace, 1850° FWT.
1—Gas 2-tube reformer furnace or heater, 26'10" high, 9" refractory lining, John-Zink gas burners.
2—Foster-Wheeler 5190 sq. ft. boilers, 1200 psi, 50,000#/hr., w/economizers, gas-oil fired.

STAINLESS STEEL TANKS

(Type 316 Stainless Steel)

3—11,800 gal. vert., 12' dia. x 14' high, 3/16", S.E. Agit.
4—10,000 gal. vert., 12'x12', 3/16", 15 HP Turbine Agit.
1—10,000 gal. vert., 12'x12', ¼", 15 HP Turbine Agit., JACKETED.
2—5800 gal. vert., 10'x10', 3/16", 15 HP Turbine Agit.
1—4200 gal. vert., 8'6"x9', 3/16", cone bottom.
1—3500 gal. horiz., 6'x16', 300 psi WP, dished heads, T316 SS clad, 45 sq. ft. coil.
6—3000 gal. vert., 8'x8', 3/16", Agit.
1—1700 gal. vert., 6'x8', 3/16", 10 HP Agit.
1—1150 gal. vert., 5'6"x6', 3/16", 5 HP Agit.
1—900 gal. vert., 5'x6', 3/16".
1—620 gal. vert., 3'x10'8", ¼", dished top, cone bottom.
1—560 gal. vert., 3'x9'8", ¼", dished top, cone bottom.
10—30 to 100 gal. T316 SS tanks.

HEAT EXCHANGERS EVAPORATORS

1—1064 sq. ft. General Amer. T316 SS forced circ. evap.
1—1200 sq. ft. Swenson, T316 ELC SS single-effect vert. long-tube evap.
1—5300 sq. ft. Swenson T316 ELC SS double-effect vert. long-tube evap.
1—6570 sq. ft. Swenson T316 ELC SS 3-body, 2-stage vertical long-tube evap., T316 ELC SS vertical heaters, Neoprene rubber-lined vert. vapor bodies, with pumps, piping, controls, etc.
1—220 sq. ft., T316 SS double-pipe cooler.
2—212 sq. ft. T304 SS tru-fin tubular condensers.
2—192 sq. ft. T304 SS Graham "Monobolt" exchangers.
1—154 sq. ft. Davis exchanger, admiralty tubes.
1—90 sq. ft. Whitlock T316 SS exchanger, ASME 1000 psi WP shell & tubes, remov. tube-bundle.

COMPRESSORS

2—Ingersoll-Rand air compressors, 2610 cfm @ 1000 psi, model #PRE-4, size 10 & 6¼x19, & 27½x16¾x19, (4) stage, 1000 HP motor.
2—Penna. air comp., 305 cfm @ 100 psi, model 3-ATC, size 12x11, 75 HP motor or 88 HP gas-engine drive.
2—Chicago-Pneumatic gas comp., 317 cfm @ 1500 psi, #TCB-3, 11¾—7¼x3⅛x13, 3-stage, 125 HP.
1—Ing.-Rand air comp., ES-3, 10½x7⅛x3⅛, 125 HP.

MISCELLANEOUS

30—Nettco Agit. drives: #WT-47, WT-37, WT-27.
1—Marcy 64½ contin. ball mill, 100 HP.
2—Munson #7 rotary batch blenders, 60 cu. ft., heavy-duty, 25 HP motor.
1—Komarek-Greaves 1000#/hr. briquett press, SS rolls, 22,000 psi w/vari-drive.
3—Screw type classifiers, T316 SS, 12" dia. x 96".
35—Agitators, T316 SS, 10-blade turbines, with shafts.
3—Wallace & Tiernan #WB9LM Merchen scale feeders.
3—Wallace & Tiernan #A-552 dry chemical feeders.
1—Flotation machine, 4-cell, 56", w/drives.
3—Toledo 750# dial scales, portable.
21—Nitrogen gas cylinders, 2100 psi.
20—Rubber-lined tanks, to 10,000 gal., T316 SS Agit.
1—Sweco 16" dia. Stainless separator screen.
20,000'—T316 SS Pipe, Sch. 10 & Sch. 40, all sizes.
2000'—Titanium pipe & tubing.
5000'—Hard rubber, plastic pipe.
5000—T316 SS valves, screwed or flanged, to 6".

LIQUIDATING

MAUMELLE ORDNANCE PLANT
LITTLE ROCK, ARKANSAS
(250 miles from Fredericktown plant)

REACTORS — KETTLES

40—Pfaudler 1400 gal. glass-lined jkt. kettles, Agit.
10—Pfaudler 1250 gal. glass-lined jkt. reactors, vacuum int., 50 psi jacket, Agit.
49—Pfaudler 600 gal. Stainless jacketed Kettles.
68—Pfaudler 250 gal. glass-lined jkt. kettles.

TANKS

13—28,000 gal. horiz. steel, 11'x38', dished, 75 psi.
3—21,000 gal. vert. T316 SS, 14'x15', cone bottom, ⅜".
3—13,300 gal. vert., Stainless, 11'10"x15'7", closed.
12—11,500 gal. horiz., Pfaudler glass-lined, 8'x30', dished, 75 sq. ft. nickel coils.
2—11,000 gal. horiz. steel, 8'x27', dished, 300 psi.
50—5200 gal. horiz. steel, 6'x24', ½", dished.
17—3650 gal. vert. Stainless, 10'x7', open.
57—1350 gal. T347 SS, 4'x14', dished, ASME 60 psi WP, with coils.
9—1300 gal. vert., T321 SS, 7'x4'6", closed.
2—1100 gal. vert., T347 SS, 4'x11', dished, 60 psi.
23—475 gal. vert., Stainless, 4'6"x4', open.
26—445 gal. vert. Stainless, 6'x2', open.

HEAT EXCHANGERS — COLUMNS BOILERS

6—1450 sq. ft. T347 SS gas condensers, ASME 60 psi.
3—1000 sq. ft. Duriron pipe coolers.
3—564 sq. ft. T347 SS Ammonia burner-preheaters.
9—400 sq. ft. T304 SS pipe coolers.
10—Amer. Spiral T316L SS exchangers: 162, 73 sq. ft.
15—75 sq. ft. nickel pipe coils.
30—Duriron pipe coolers: 170, 120, 110, 55, 10 sq. ft.
16—24" dia. x 12' high Duriron packed columns.
1—24" dia. x 33' high Duriron & Stainless packed column.
3—435 sq. ft. Waste-Heat boilers, 250 psi WP.
5—435 HP Comb. Eng. water-tube boilers, 300 psi.

COMPRESSORS — BLOWERS

3—Worthington 3500 cfm @ 45 psi, #LTC-4, 24x15, 500 HP Nat. Gas engine drive.
1—Chi.-Pneu. 3000 cfm @ 60 psi, #19-32-30-18x24.
15—Ing.-Rand #67D9, 6x6x5, type 30, 10 HP.
8—Elliott Turbo-blowers, #0, 11,620 cfm, 125 HP.
9—Buffalo 42" dia. stainles blowers, #6, type LL.
9—Buffalo 32" dia. Stainles blowers, 2 HP.
5—Spencer 24" dia. Stainless turbo-blowers.

MISCELLANEOUS

1—Link-Belt #900-30 Roto-Louvre dryer.
30—LaBour #15-DPL, 2" Stainless self-prim. pump.
150—Worthington "Worthite" centrif. pumps: 4"x3", 3"x2", 2"x1½", etc., w/motors.
15—Aurora 1½"x1" Stainless sump pump, #18, 2 HP.
25,000'—T304 SS pipe, sch. 10 or sch. 40; 4", 3".
15,000'—T304 SS pipe, sch. 10 or sch. 40; 2½", 2", 1½", 1¼", ¾", etc.
10,000—T304 SS flanged valves, all sizes.
2000'—Duriron Split-flanged pipe.
10,000'—T304 SS vapor-pipe: 6", 12", 16", 20", 24" dia.
15—Toledo 200# portable dial scales.
15—Stainless shaker screens; 33"x53".

RECENT STOCK PURCHASES

5—J. P. Devine #28 vacuum shelf dryers, 564 sq. ft., double door, shelves 59"x78".
1—Buflovak 2'x7'10" rotary vacuum dryer, T304 SS, ASME jacket, 3 HP XP Agit.
4—Sparkler 200 sq. ft., type RSC filters, T304 SS, UNUSED.
1—Pfaudler "P" jkt. glass-lined reactor, Agit.
2—Pfaudler 500 gal. glass-lined jkt. reactors.
1—Artisan 1200 gal. T304 SS clad jkt. reactor, Agit., 100 psi jkt.
1—Tolhurst 40" susp. T316 SS centrifugal.
2—Pfaudler 62 sq. ft. Thimble condensers.
2—200 gal. T304 SS jkt. reactors, UNUSED.
2—Buflovak 42"x120" dbl. drum dryers, ASME 160 psi.
2—Abbe 6'x8' pebble mills, buhrstone.

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EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

3—Pfaudler Series R 2000 gal. glass lined jacketed reactors complete with impeller type agitators, baffles and drives.

3—Glascote Model HR 2000 gal. glass lined jacketed reactors, complete with impeller type agitators, baffles and drives.

3—Glascote Model HR 1500 gal. glass lined jacketed reactors, complete with impeller type agitator, baffle and drive.

1—Pfaudler Series R 1500 gal. glass lined jacketed reactor, complete with impeller type agitator, baffle and drive.

1—Pfaudler Series EL glass lined 750 gal. jacketed reactor, complete with anchor type agitator and drive.

2—SS 2000 gal. jacketed reactors, complete with impeller type agitators and drives.

1—Alloy Fabricators SS 5000 gal. jacketed reactor, complete with impeller type agitator and drive.

2—SS vertical storage tanks, 11,000 gal.

2—Baker Perkins Sixe 6CE double arm sigma blade jacketed mixer, 2¼ gals., complete.

2—Day type 304 SS horizontal double ribbon blenders, 62.5 cu. ft.

1—Cowles type 316 SS dissolver, Model 20D with 20 HP explosion proof motor.

3—Sprout Waldron jacketed double ribbon blenders, 30 cu. ft.

15—Robinson SS ribbon blenders, 255 cu. ft.

1—Sturtevant SS #7 Dustite rotary batch blender.

1—Raymond 2 roll high side mill.

1—Williams "Comet" 4 roll mill.

2—Mikro SS #3Th pulverizer.

1—Mikro #1 SH SS pulverizer.

1—Shriver 56" filter press skeleton with hydraulic closing device.

1—Niagara SS horizontal filter, Model 33-12-D.

1—Niagara SS horizontal filter, Model 33-D7.

1—Louisville SS rotary dryer, 8' x 50'.

1—Davenport rotary steam tube dryer, 5' x 30'.

70—Alloy Fabricators 400 gal. SS jacketed reactors.

18—Stokes type 304 SS jacketed rotary vacuum dryers, 3' x 10' and 3' x 15'.

5—Stainless steel double cone jacketed vacuum blenders, 10 cu. ft.

1—Buflovak 6" x 8" chrome plated double drum dryer.

2—Sharples type 316 SS nozljectors with 40 HP explosion proof motors.

1—Baker Perkins SS Termeer centrifuge, Model HS-24.

1—Tolhurst SS suspended type centrifuge with 32" imperforate basket, complete with motor and plow.

1—Bird SS 40" suspended type centrifuge, complete with perforate basket, plow and motor.

1—Western States type 316 SS suspended type centrifuge, complete with perforate basket, plow and motor.

18—Davis Engineering heat exchangers, stainless steel, 115, 134, 156 and 208 sq. ft., NEW.

1—Patterson-Kelley Carpenter 20 heat exchanger, 520 sq. ft.

1—Stokes tablet press, Model RDS-3.

1—Pfaudler type 316 SS 750 gal. reactor.

3—Pfaudler SS reactors, 200 and 100 gals.

1—Stokes SS jacketed rotary vacuum dryer, 2' x 6'.

1—Eimco SS rotary vacuum filter, 4' x 4'.

R. GELB & SONS, INC.
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

TOP VALUES

2—1000 Gal. type 316 S/S Reactors ASME code complete with Agitators.
5—1 Gal. S/S Autoclaves, with heaters
3—Ribbon Blenders 600, 1000, 3000 lbs.
7—Pony Mixers, 2½, 8, 15, 40 Gal. steel & S/S
1—Stokes 43 B S/S Granulator
1—1'x1' Oliver 316 S/S Vac. Filter
1—Colton 17TF Auto Tube Filler & Closer
1—Kent 4"x8" Lab. Mill
1—Model 1 SH Mikro 5 HP

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73-15th Street, Brooklyn 15, N. Y.
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CURRENT SPECIALS!

1—Abbe 100 Gal. Porc. Lined Mill.
2—Stokes Rotary Tablet Machines RDS-3.
2—Day 40 gallon S.S. Pony Mixers.
1—Day 2000# S.S. Blender.
1—S.S. 1000 gallon, Jacketed Tank.
24—S.S. Tanks, 75 to 400 gallons.
1—S.S. Jacketed Kettle 300 gallons.
1—Eppenbach 3 H.P. Homo-Mixer.
20—Agitators ¼, ⅓, ½, 3/60/220 V. & 1 Ph. Exp. Pf.

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Complete listings. We buy your surplus.

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MArket 2-3103

FOR THE BEST IN USED EQUIPMENT

1—Mead Mill #2 with 7½ H.P. Motor.
1—Schutz O'Neill Pulverizer 22" Style D.
1—Jeffrey Vibrating Conveyor 15' long.
1—Ribbon Blender, 100 cu. ft.
1—Copper Evaporator, jacketed, 250 gal.
4—W & P 200 gal. jktd. sigma blade Shredders.
2—Ball & Jewell #2 Cutters.
4—Link-Belt Vibrating Screens 4'x8'.
1—30" Sperry Filter, closed del., 3-eye, 39-plates, 40-frames.
1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
1—International Ball Mill, porcelain lined, 48"x60", 15 H.P. Unibrake Motor.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed, like new.
2—J. H. Day Pony Mixers 00 & 15 gal.
1—Day #10 Cincinnatus Jktd. Sigma Mixer.
1—Patterson Steam Jkt. Ball Mill 42"x36".
1—430 S.S. Tank 3000 gal. vert. ¾ plate.
2—Vacuum Pumps, Gardner-Denver, 5" bore, 4" stroke, with 7½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers, 120 gal. jkt.
1—Aetna Wafer Still, 20 gph—new.

Large stock of new and used high pressure Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Steam Jacketed Kettles, Pulverizers & Autoclaves.

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DRYER — 1250# pigment/hr., stainless Proctor & Schwartz Aeroform.

CENTRIFUGES — 18x18 stainless Bird w/10 HP motor drive.

TANK—630 gallon stainless—unused.

DISSOLVER — Cowles 250 gal. w/10 HP x-proof—unused.

KARBATE HEAT EXCHANGERS —size 3114, 5 pass., 75 psi.

BOILERS — 500 HP, 150 psi, package type, Cleaver Brooks, gas/oil, New '57.

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LAWLER PLACE METUCHEN, N.J.
LIBERTY 9-0245

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BIRD Continuous Centrifuge 18" x 28" 316 S.S. (1952) 15 H.P. Washing.

COLUMN S.S. 4' D x 65' high, 55 plates.
TANKS S.S. 304, 2500 gal. 7' x 8' new.
KNEADER MASTER—Paterson 2½ gal.
COLLOID MILL—Premier UB5 S.S. 5 H.P.
CENTRIFUGE—ATM Susp. 48" 316 S.S., 50 H.P.
ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".
CENTRIFUGE—Tolhurst 20", 40" Rubber Lined.
CENTRIFUGE—Western State 36", underdriven, bottom discharge, 316 S.S., 2 speed, 10 H.P. XP.

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EQUIPMENT STILL INSTALLED

This is a metallurgical plant that manufactured Manganese Oxide, Manganese Sulfate, Copper Sulfate, Copper Carbonate. It is adaptable to making metallic salts.

Location—Paterson, N. J.

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1—5000 gallon aluminum horizontal tank.

1—Buflovak 42"x120" twin drum dryer, vari-drive, 10 HP.

3—Sparkler 33-S-17 rubber lined filters.

1—Tolhurst suspended centrifuge, 32" solid stainless steel basket.

1—Hersey hot air rotary dryer 1½'x16'.

2—Sharples model DH-2 nozlejectors type 316 stainless steel, 20 HP.

4—Labour size 10 type DHL stainless steel self-priming pumps, R-55 metal.

1—Oliver 3'x2' stainless steel rotary vacuum filter.

1—Stokes 24"x24" drum flaker.

4—Baker-Perkins jacketed double arm mixers, 200, 100, 50, 2¼ gallons.

1—Day 215 cu. ft. stainless steel ribbon blender.

4—Stainless steel bubble cap columns, 60", 54", 48", 30".

Write or Phone Your Inquiries

chemical & process machinery corp.
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EQUIPMENT OFFERED

For Sale: (4)-Stainless Double Effect Evaporators, 608-708-845-1125 sq. ft.; Girdler Votator having three 4" x 46" stainless cylinders; 2' x 6' Stokes stainless Rotary Vacuum Dryer; Best Equipment Co., 1737 W. Howard St., Chicago 26, Illinois.

EQUIPMENT WANTED

Continuous Centrifuge wanted. Preferably Bird or Solhurst Maxi-Flex, stainless steel wetted parts. Must be in first class condition. OPD 304.

FACILITIES OFFERED

Custom drying/blending — complete modern drying and blending facilities including Stokes stainless steel jacketed high vacuum rotary dryer fully equipped for solvents recovery. Round-the-clock operation. Reply in confidence to Tennant Development Corporation, 100 Park Ave., New York 17, N. Y.

MATERIALS WANTED

Wanted—Wanted—Source of supply for Di Octyl Pthalate, Di Methyl Pthalate, Di Ethyl Pthalate. Contract basis available. OPD 305.

PLANTS OFFERED

Old Mill (1827) Ideal Development and Research Center. Residence and manufacturing buildings available. Office and laboratories. Voluminous water free. Power. Isolated country area. Hunterdon Hills. 12 acres, sidings. Clinton 821 or Associated Terminal, Pittstown, N. J.

For Rent: Paterson, N. J. One Story brick, 26,000 ft. 11,000 ft. basement, sprinklered, Hi pressure steam, RR siding, fenced yard, Unrestricted OPD 306.

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Bahamas Firm experienced fertilizers and chemicals now engaged licensing activities Near, Middle and Far East desires to discuss handling similar products that area. Contact through H. R. Shawk, 363 Edgewater Drive, Dunedin, Florida, USA.

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Salesman—Terrific opportunity for Salesman calling on Meat Packers. Sell our complete line of soluble meat seaonings. May be handled as side-line, if desired. High commission. Write fully, in complete confidence. OPD 300.

Sales Representatives wanted for the following territories: Wisconsin, Minnesota, Missouri, Kentucky, Michigan, Kansas and Indiana and surrounding area to sell complete line of resins to the paint industry and/or a complete line of polyester resins for reinforced plastics. American Alkyd Industries of Illinois, with the newest and largest Synthetic Resin Plant located at Carpentersville, Illinois, is interested in Representatives and Salesmen with definite large volume accounts available. Write full details to: C. J. Hauck, President, American Alkyd Industries, Carlstadt, New Jersey.

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High Vacuum Molecular distillation for large quantity runs on a toll basis. Separations without thermal hazard. Molecular Distillations Inc. 527 Madison Avenue, New York 22, Tele: PLaza 3-6527.

ALUMINUM CONDENSER, 350 sq. ft.
DISTILLATION UNIT S.S. Type 316, 1200 gal. per hr.
LAPP FITTINGS, VALVES.
Continuous Stripping COLUMN 2x13.
ALUMINUM EVAPORATOR, Calandria type, 1300 sq. ft.
BLENDER—Double Cone, 70 cu. ft.
NICKEL HEAT EXCHANGER, 250 sq. ft.

MACHINECRAFT CORP.
800 Wilson Avenue, Newark 8, New Jersey
Mitchell 2-7634

Pesticide Chemical Sales

Continued from Page 7

goes into agriculture, with the remaining 40 percent being split about fifty-fifty between non-agricultural domestic uses and exports.

New markets for pesticides are expanding. For instance, industry sales in the home and garden market are now estimated at close to $50 million a year at the basic manufacturers' level.

According to data compiled by the Department of Agriculture's Agricultural Stabilization & Conservation Service, the 1961 export value of pesticide chemicals probably will reach a new annual record of $116,363,000.

This is some 100 percent higher than the annual average exports for 1953-55 ($62,882,000.)

Nitrogen: Norway Protests Swedish Expansion Plans

Norvegienne de l-Azote, Norway's major producer of nitrogenous fertilizer, is attacking the world over-supply problem directly with a protest to the Swedish government, which is reported to be planning measures to boost Swedish nitrogen output.

The Norwegian company's position is simple. It says it has enough capacity for the needs of both countries.

Dutch to Check Additives

Holland is establishing a department in its public health machinery to check into food and processing. This is one result of the 1960 summer outbreak of a skin complaint generally laid to an additive used in a new brand of margarine sold by the Unilever group. The new department will begin its operation the first of the year.

Drug Industry Rallied

Continued from Page 7

down 7.6 percent since 1949, while the index of all other goods has risen 26.7 percent—in answer to charges of high drug prices.

• An independent study has shown the industry to be free of stifling concentration—in answer to charges of monopoly.

• That patent protection and brand name use, both under attack in Washington, are keys to the industry's economic and healing functions. Patent laws spur research, while brand names insure quality control, Dr. Smith noted.

Reporting results of a new PMA study, Dr. Smith said that Americans have gained about $7.5 billion in income annually as a result of drugs to cure pneumonia, tuberculosis, influenza and syphilis.

Since 1935, the decline in death rates from these four diseases has been dramatic, he said. Without drugs to cure the diseases, two million Americans now living would be dead. From an economic standpoint, this amounts to 162 million man-days a year.

Using these figures, statisticians computed that the two million earned $5 billion in 1960. In addition, those who lost fewer work days because their disability periods were shortened by drugs added nearly $2.5 billion to their incomes, Dr. Smith said.

Big Struggle Ahead

Ahead, he went on, lies the struggle against cancer, heart disease, arthritis, rheumatism, mental disease, diabetes, to name a few.

Hostility from Washington, or ignorance or apathy in the public, would work on the side of the disease rather than with the undiscovered drug, it was indicated.

Dr. Smith's speech, which was entitled "Report to the Nation," frankly discussed the role of profits—the fact that a drug producer is a merchant as well as a healer.

Only a healthy business can afford the risks and costs involved in discovering new cures for killer diseases, he said. Profits, the key to business health, have helped pay the drug industry's $1.2 billion outlay for research in the past ten years, Dr. Smith noted.

"Any attack on the patent system—such as that facing the drug industry in Washington—is a fundamental blow at the concept of privately financed research. It should be firmly resisted by all who hope for a better world in the future," PMA's chief warned.

Lines of approach to communicating with the public will soon be multiplied by studies now under way by PMA, it was reported.

PMA, still barely three years old, is meeting periodically with other organizations to collect data on medical care, and has under way "a full-scale probe of the impact of medicine costs on the American people."

"By next year, perhaps," said Dr. Smith, "I shall be able to take apart for you the whole subject of drug costs and their relationship to the total cost of medical care, and to the economy of the country, with as much precision as a mechanic takes apart a car.

"Meanwhile, as you know from reading about the industry testimony in Washington, we have come a long way toward understanding our own industry better.

"As we are able to assemble information more and more effectively for you, we hope you are learning, as we ourselves are learning, how to communicate it to the public so that their questions are answered plainly and factually. This is how, in time, we will breach the communications barrier."

Kaeppeli, Umbricht

Continued from Page 7

Ltd., except for the retirement of former chairman, Frank Common, and the election of Dr. Albert Wettstein.

Other officers of the corporation are T. F. Davies Haines, executive vice-president; David B. Dyche, vice-president in charge of finance; Dr. Harry B. Marshall, vice-president; Roderic L. O'Connor, vice-president and secretary; Clifton S. Thomson, general counsel; Karl Zimmermann, controller; and T. H. Saari, treasurer.

Present operating subsidiaries are to become divisions of the Ciba Corporation. Mr. Haines will continue as president of Ciba Pharmaceutical Company, Dr. Marshall will continue as president of Ciba Chemical & Dye Company, and Donald Joseph will become president of Ciba Products Company.

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Enamel, Spec. MIL-E-1115A, 12,800 pails, various destinations Bid IFB-63077-1929-62B Dec. 26. **Enamel, Gray,** Spec. MIL-P-00699A (Ships) 35603, 39,455 pails, various destinations. Bid IFB-63077-1524-62B Dec. 26. **Enamel,** Spec. MIL-E-10687B Amend. 1 (QPL), 3,400 cans, also 1,366 gals., various destinations. Bid IFB-63077-1530-62B Dec. 26. **Enamel,** Spec. Fed. TT-E-489C Class A (QPL), 119,250 gals., various destinations. Bid IFB-63077-1533-62B Dec. 26. **Enamel,** Spec. Fed. TT-E-485D Amend. 1, Type IV (QPL), 50,000 gals., various destinations. Bid IFB-63077-1535-62B Jan. 4. Military Industrial Supply Agency, 700 Robbins Avenue, Philadelphia 11, Pa.

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Hydrochloric Acid (Muriatic), 6810-222-9645, technical, 31 percent min. aqueous solution by wt. of hydrochloric acid, 1.158 min. Sp. Gr. at 60 deg./60 deg. F. Fed. Spec. O-H-765A (10/29/59), 112,000 lbs. **Nitric Acid,** 6810-260-1205, technical, 61 percent min. aqueous solution by wt. of nitric acid. Sp. Gr. any acceptable. Fed. Spec. O-N-350 (10/29/59), 43,000 lbs. **Sulfuric Acid,** 6810-286-6022, technical, 66 deg. Be (93-13 percent) not less than 93 percent sulfuric acid concentration by wt., min. 1.835 Sp. Gr. at 60 deg./60 deg. F. Class 1 Fed. Spec. O-S-809A (5/6/60), 40,000 lbs. **Orthophosphoric Acid (Phosphoric),** 6810-264-6549, technical, 85 percent min. aqueous solution by wt. of orthophosphoric acid, min. 1.690 Sp. Gr. 20 deg./4 deg. Class 1 Fed. Spec. 0-0-670 (3/30/60), 25,000 lbs. (Specs. avail. for visual examination at Bldg. 43, Directorate Procurement & Production, Kelly AFB, Tex., or forward request to Commander AFLC, Wright-Patterson AFB Ohio. Attn: EWBFED Referencinfi IFB 41-608-62-180) Deliveries to Transportation Officer, Kelly AFB, Tex. Bid IFB 41-608-62-180B Dec. 26. Directorate Procurement & Production (SAPOS), Kelly AFB, Tex. (Direct technical inquiries to J. Lara, WAlunt 3-5411, ext. 42204, Kelly AFB, Tex.)

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Kefauver Would Make Drug Peace

Continued from Page 3

because he thinks that the drug company which makes an important innovation would want to be protected from those "coattail riders" who make a slight molecular modification and obtain a patent of their own.

He says that this is not the type of competition from which the public derives benefit, either in the form of lower prices or better products. It usually happens, he adds, that the imitating companies tend to charge about the same price as the company making the breakthrough.

"Inasmuch as the drug industry has made important concessions on the FDA provisions of the bill," Sen. Kefauver says, "I wish to make it clear that I am not irrevocably wedded to the precise approach to these patent issues embodied in S 1552.

Something Must Be Done on Patents

"If the American people are to secure any significant relief from the current high prices which they have to pay for drugs, something must be done in this area, assuming of course that we do not wish to replace the competitive approach with more direct forms of governmental intervention."

The senator's statement came at the conclusion of the opposition testimony at an unusual Saturday session of his investigating committee, which included testimony by a chemical industry spokesman: Robert B. Semple, chairman of the executive committee of the Manufacturing Chemists' Association and president of Wyandotte Chemicals Corporation, Wyandotte, Mich.

Hearings continued for two days last week with additional testimony favorable to the bill, as well as a discussion of the decision earlier this year by McKesson & Robbins, Inc., New York, to market ethical drugs by their generic names.

Hearings will resume this week with additional testimony favorable to closer controls over the industry.

MCA Position Amplified

Mr. Semple amplified the opposition previously expressed on behalf of the chemical industry to the patent provisions of the bill in a letter from Dr. Charles Allen Thomas, chairman of Monsanto Chemical Company, St. Louis, Mo. (OPD, 10/23/61).

Mr. Semple charged that the Kefauver bill would seriously weaken the patent system as it applies to drugs and any chemical used as a component of a drug.

He wondered what would happen if a chemical that has been on the market for a number of years should find a use in the drug industry either as a vehicle or as an ingredient of a new drug.

Would the owner of the chemical patent be required to issue immediately licenses to others to manufacture the chemical? He received no enlightment from the committee.

He also objected strongly to the prohibition in the bill against settlement of interference cases by agreement, stating that he has known of patent interferences where there are as many as five or six different patent applications, scattered all over the country, claiming the same invention.

Unless some settlement can be made, he contended, these cases can be long and costly and then wind up with only one person holding exclusive rights to produce the invention.

Retired former secretary of the American Pharmaceutical Association Dr. Robert Fischelis testified in support of the licensing features of the legislation, or rather, registration of manufacturers as recommended by PMA.

Cooperative Enforcement Urged

He also urged a cooperative enforcement program which would bring state enforcement agencies into a more intimate relationship with the FDA.

Dr. Herman C. Nolen, president of McKesson & Robbins, told the committee that his company decided to re-enter the drug manufacturing business and sell its products by their official or generic names — prominently identified by the McKesson brand name—because of the growing demand over the past few years for quality pharmaceuticals sold in this manner.

He said the demand has been stimulated by the increasing popularity of health insurance groups and other third-party drug buyers, by the wider use of the formulary system in hospitals and by other causes.

He said production was begun last February of a limited number of products and that the firm is now moving toward national distribution of these drugs.

In response to a committee subpoena, Dr. Nolen submitted examples of prices charged by McKesson for a number of ethical products which it wholesales under the generic name and those which it wholesales under the trade name of other producers.

Prices varied widely. For example, in the case of prednisolone. McKesson wholesales this product in bottles of 100 tablets for $2.50 each against comparable trade products. Merck & Co.'s "Hydeltra" for $17.90, Schering's "Metacortelone" for $17.90 and Upjohn's "Deltacortif" for $11.90.

He estimated his factory production cost of making the prednisolone tablets at approximately $1. Sen. Kefauver said committee records show that the manufacturers' factory cost for the product is around $1.50.

Dr. Nolen said that "at this stage of the game" McKesson is distributing more of the brand named products than its own prednisolone.

Nolen Clarifies Testimony

Continued from Page 3

facturers have enormous costs in researching into the unknown, in developing new products and in supplying essential information to the medical profession through their detail men."

In reference to the lower prices McKesson charges for drugs, Dr. Nolen notes that the company will produce "only those products for which the demand has been established and which a number of other companies are also producing."

McKesson will not infringe in any way on patents, and all its products will bear the McKesson brand name, he adds.

Trade Name Chemicals & Specialties

Continued from Page 59

to have an equally beneficial and bifunctional effect on manganese.

Drier metals most often used are cobalt, lead and manganese, and they are more often used in combination than alone. Too much drier is considered worse than none at all as an excess is said to actually retard drying time of the film. The drier metals are solubilized by incorporation in the aforementioned acids and then added to the paint formulation.

The paint or varnish formulator usually mixes his own combination of driers, depending on the type of vehicle used. Commercial driers are commonly formulated at 6 percent cobalt, 6 percent manganese and 16 or 24 percent lead.

Other drier metals, calcium (4 percent), iron (6 percent), and zinc (8 percent are used in specific applications. Iron driers have found application in dark-colored baking enamels and as hardening agents in foundry core oil binders. Zinc and calcium are not active driers, but are useful as auxiliaries in drier combinations.

For example, in vehicles having low lead tolerance, calcium can eliminate hazing by replacing part of the lead. Also, where lead is undesirable because of toxicity or discoloration in a sulfide-containing atmosphere, calcium can be used to replace part or all of the lead. Calcium naphthenate is also recommended as a gel promotor for thixotropic vehicles.

Zinc naphthenate in a paint film tends to hold open the film long enough to promote "through-dry" and added oxidation of the vehicle. The compound is also reported as a superior wetting aid and stabilizer, effecting better dispersion, higher gloss, and freedom from hazing.

Range of Drier Prices

Cobalt driers range from about 44-54 cents a pound in 55-gallon drums, while manganese driers are 26½-35 cents, same quantity, and lead (24 percent) sells for 21¼-30 cents a pound.

Cobalt is the most active and useful drier metal and activates drying at the surface of the film by oxidation to provide a fast tack free state. Cobalt driers are commonly referred to as "top driers" and in most applications are used in combination with lead and manganese to promote "through" drying. An excess of cobalt can result in wrinkling on the surface as the exterior dries before the interior of the film is hardened.

Manganese driers are intermediate in activity between cobalt and lead in that they have both oxidizing and polymerizing properties. Used alone, these driers have a tendency to produce extremely hard and inflexible films.

Lead is considered a "through" drier and tends to promote drying of a film throughout its thickness by catalyzing polymerization of the vehicle. It is a slow drier compared to manganese and cobalt and is usually used with the more active metals. In some alkyds and oils, small amounts of calcium are used with lead to prevent hazing.

Lead drier often improves water and salt spray resistance of a paint film and lead naphthenate tends to improve the wetting properties of the vehicle. In aluminum paints, however, it is reported to have an adverse effect on leafing and is not recommended for use in non-toxic or fume-proof paints.

According to Tariff Commission reports, production of naphthenic acid salts last year amounted to 15.1 million pounds, while tallates output was 5.4 million pounds and the total for octoates was 1.5 million pounds.

Lead naphthenate production amounted to 8.2 million pounds; cobalt naphthenate, 2.7 million; calcium, 1.4 million and manganese, 1.5 million lbs.

Production of lead tallate totaled 2.4 million pounds last year; cobalt tallate, 1.9 million, and manganese tallate, 610,000 pounds.

Trade Name Briefs

ACRYLICS: "Arocryl 701," a new one-package acrylic copolymer resin solution said to out-perform the best alkyd-amine systems in resistance to detergents, solvents, alkalies and stains, has been announced by Archer-Daniels-Midland Company. The resin is a thermosetting vehicle recommended for use on appliances, metal furniture, hospital equipment and other metal products.

ADM has also introduced a new moisture-curing urethane vehicle tradenamed "Arothane 156" for clear finishes requiring high resistance to heavy foot traffic, impact, weather and chemicals.

ANIONICS: Dow Chemical Company is marketing a new anionic surfactant tradenamed "Benax 2A1" (sodium dodecylated oxydibenzene).

According to Dow, the unusual oxide linkage of two benzene rings enables the product to maintain solubility and surface activity in highly concentrated electrolyte systems where presently known surface active agents of comparable detergency are not soluble.

DIMER ACID: Chemical division of General Mills, Inc., is marketing a new dimer acid, "Versadyme 204," for use in the preparation of a variety of polymers.

The product is described as a dibasic acid prepared by dimerization of vegetable fatty acids, using a General Mills process.

STARCH: Morningstar-Paisley, Inc., has introduced a new starch-based resin polymer, "Peeramid M-18," for use on top grades of paper and liner board to add dry strength without increasing wet strength.

Morningstar says the product has been approved for use in paper and paper board for food packaging and when used in milk carton stock imparts lactic acid resistance.

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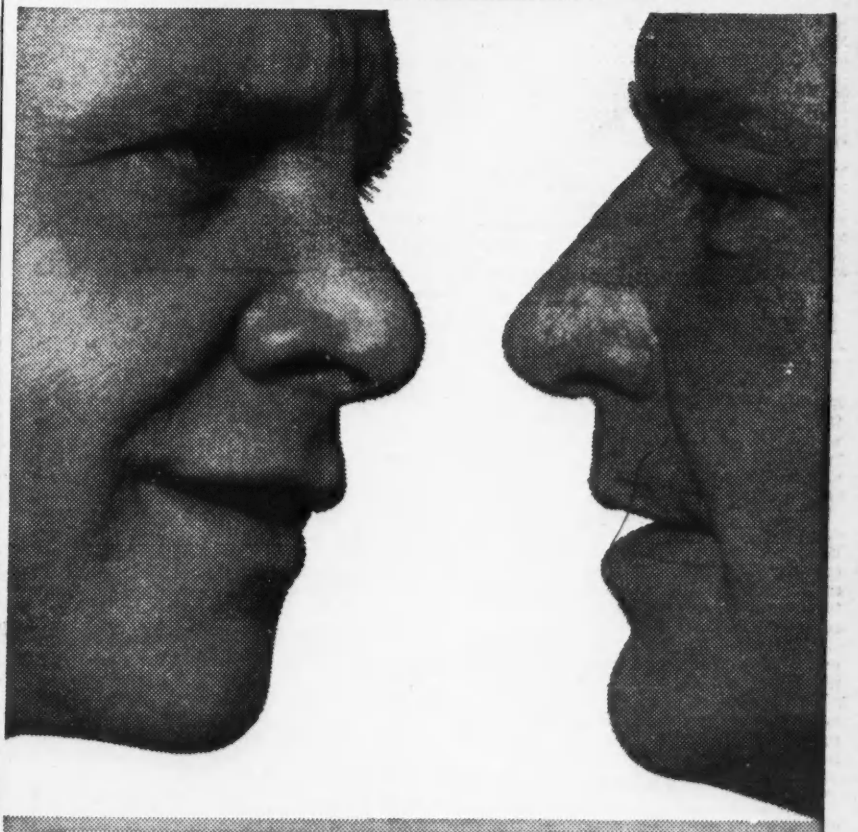

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